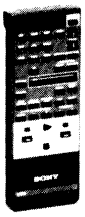
SLV-801/802
RMT-252

SERVICE MANUAL

AEP Model
UK Model
SLV-801

West Germany Model
SLV-802



This photograph is SLV-801

Remote commander is available as a unit,
but as individual parts the battery case
lied of commander is only available.

SPECIFICATIONS

System

Format	VHS PAL standard
Video recording system	Rotary two-head helical scanning
Video signal	CCIR standards, PAL colour
Channel coverage	VHF: Western European channels E2-E12 (AEP, WG Model) S01-S05 (AEP, WG) CATV: S1-S20 (AEP, WG) HYPER:S21-S41 (AEP, WG) UHF: E21-E69 (AEP, WG) B21-B69 (UK Model)
RF output signal	UHF channels E30 to E39 (Variable) (AEP, WG) B30 to B39 (Variable) (UK) 75 ohms, unbalanced
Antenna	75 ohms, asymmetrical antenna socket

Video

Input	VIDEO IN: Phono jack (1) EUROCONNECTOR: 21-pin (pin20) 1.0 V (p-p), 75 ohms, unbalanced, sync negative
Output	VIDEO OUT: Phono jack (1) EUROCONNECTOR: 21-pin (pin19) 1.0 V (p-p), 75 ohms, unbalanced, sync negative

Audio

Input	AUDIO IN: Phono jack (2) More than 47 kilohms, −7.8 dBs (0 dBs = 0.775 Vrms) EUROCONNECTOR: 21-pin (pins 2 and 6) More than 10 kilohms, −3.8 dBs Microphone: Minijack
Output	AUDIO OUT: Phone jack (2) Less than 10 kilohms, −7.8 dBs (47 kilohms load), unbalanced EUROCONNECTOR: 21-pin (pins 1 and 3) Output impedance less than 1 kilohms −3.8 dBs with 10 kilohms load unbalanced Headphones: Stereo phone Minijack

Hi-Fi

Frequency Range:	20 Hz to 20 kHz
Dynamic Range:	More than 90 dB
Wow and Flutter:	Less than 0.005% WRMS

Tape transport

Tape speed	23.39 mm/sec. (Video/audio recording) 11.7 mm/sec. (Audio recording only)
Maximum recording time	4 hours (Video/audio recording), 8 hours (Audio recording only) (with E-240 cassette)

Timer

Clock	Crystal lock (AEP, WG) AC lock (UK)
Time indication	24-hour cycle
Timer setting	Only for recording 8 event/1 year or every day

General

Power requirements	220 V AC ± 10%, 50 Hz (AEP, WG) 240 V AC ± 10%, 50 Hz (UK)
Power consumption	48 W (AEP)/49 W (WG) 45 W (UK)
Operating temperature	5°C to 40°C
Storage temperature	−20°C to +60°C
Dimensions	Approx. 435x92x377 mm (w/h/d) incl. projecting parts and controls
Weight	Approx. 8.0 kg

Remote Commander RMT-252

Remote control system	Infrared control
Command mode	VTR-1
Power requirements	3 V DC, 2 R6 batteries (size AA)
Dimensions	Approx. 67x20x174 including projecting parts and controls
Weight	Approx. 112 g without batteries

Accessories supplied

Remote Commander RMT-252 with R6 batteries (2)
75-ohms coaxial cable for recorder to TV connection (1)
Screwdriver for RF channel adjustment (1)
Connecting cord (2 phono to 2 phono) (1)

MICROFILM

VHS PAL VIDEO CASSETTE RECORDER

SONY®

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SAFETY PRECAUTIONS

The following precautions should be observed when servicing.

1. Since many parts in the unit have special safety-related characteristics, always use genuine SONY replacement parts. Especially critical parts in the power circuit block should not be replaced with other makes. Critical parts are marked with ⚠ in the schematic diagram and circuit board diagram.
2. Before returning a repaired unit to the customer, the service technician must thoroughly test the unit to ascetain that it is completely safe to operate without danger of electrical shock.

COMPARISON OF MAIN CONTROL ICs

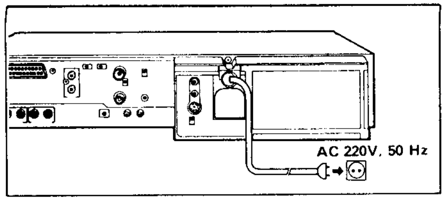
ITEM		SLV801/802	SLV201/202
VIDEO SYSTEM	Y.SIGNAL PROCESSOR	HT4847(IC201)	HT4847(IC201)
	CHROMA SIGNAL PROCESSOR	HT4809(IC301)	HT4809(IC301)
	Y.VERT.PROCESSOR	HT4848(IC202)	HT4848(IC202)
	COMB FILTER	HE8020(IC204)	HE8020(IC204)
	CCD 1H DELAY	HT4664(IC203)	HT4664(IC203)
AUDIO SYSTEM	IN-OUT SELECT/MODE SELECT	HA12117NT(IC501)	BA7751(IC402)
	FM AUDIO PROCESS	HA12118NT(IC503)	—
	NOISE REDUCTION	BA7720S(IC401)	—
	REC LEVEL CONTROL	M51131L(IC402)	—
	SUB SCREEN AUDIO SELECT	M61659L(IC404)	—
MPX DEMODULATOR	DEMODULATOR	IR·3P02(IC1801)	—
CH TUNING SYSTEM	TUNING CONTROL/BAND SWITCH	μPC1484CA(IC801)F.S (For AEP,WG)	μPC1484CA(IC801)F.S (For AEP,WG)
		LA7935(IC801)(For UK)	LA7935(IC801)(For UK)
OSD	OSD μP	M50455-003SP(IC1401)	—
	AFC, SYNC SEPA. SYNC DET.	NJM2229S(IC1402)	—
SERVO SYSTEM	SPEED PHASE CONTROL	HD4716S(IC601)	HD4716S(IC601)
	CYLINDER MOTOR DRIVE	HA13403(IC603)	HA13403(IC603)
	CAPSTAN MOTOR DRIVE	TA8408(IC1601)	M54680FP(IC1610)
	TRICK PLAY CONTROL	M54874P(IC602)	M54874P(IC602)
SYSTEM CONTROL	SYSTEM CONTROL μP	HD614088SB99(IC901)	HD614088SB44(IC901)
	LOADING MOTOR DRIVE	BA6209U2(IC902)	BA6209U2(IC902)
	INDEX SEARCH CONTROL	HES-8026A(IC904)	HES-8026A(IC904)
TIMER	TIMER μP	M50955-678SP(IC701)	M50955-677SP(IC701)
	EAROM	M58630P(IC702)	M58630P(IC702)
POWER SUPPLY	REGULATOR	STK5372H(IC851)	STK5372H(IC851)
	5V REGULATOR	L780S05(IC852)	—
	-6V REGULATOR	AN79N06(IC853)	—
DIGITAL PROCESS	INPUT SIGNAL SELECT	HC4053FP(IC1001)	—
	P in P CHROMA H/V SIGNAL DECODER	HA11535MP(IC1002)	—
	SYNC SEPARATOR	NJM2217L(IC1003)	—
	CHROMA SIGNAL DECODER	M51271SP(IC1004,IC1006)	—
	MAIN/SUB SCREEN SWITCH	HD14053FP(IC1030)	—
	AGC	M51489L(IC1031)	—
	1-FIELD MEMORY CONTROL	M65011FP(IC1007)	—
	SPECIAL EFFECT DECODER	M50747FP(IC1008)	—
	OSD	HT4683A(IC1029)	—
	DATA SELECT	74HC157M(IC1009~ IC1010,IC1022~0C1024)	—
	A/D CONVERTER	M52678P(IC1011~IC1012)	—
DIGITAL PROCESS	DATA SELECT	74HC153M(IC1013~IC1015, IC1019~IC1021)	—
	D/A CONVERTER	M52679P(IC1025~IC1027)	—
	MPX	—	—
	P in P CONTROL	—	—
	SELECT SW	—	—
	P in P MEMORY	—	—
	COMPARATOR	—	—
TIMER SUB	DIGITAL CONTROL	HD6074008F(IC2701)	—

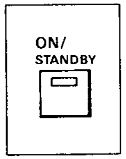
COMPARISON WITH PREVIOUS MODEL

ITEM		SLV801/802	SLV201/202
FEATURES	HQ (HIGH QUALITY)	PROVIDED	PROVIDED
	PEAK PROGRAMME METER	PROVIDED	NOT PROVIDED
	AUDIO DUB	PROVIDED	NOT PROVIDED
	P in P	PROVIDED	NOT PROVIDED
	P in P SHIFT	PROVIDED	NOT PROVIDED
	TV in TV	PROVIDED	NOT PROVIDED
	MEMORY STOP	PROVIDED	NOT PROVIDED
	STROBE	PROVIDED	NOT PROVIDED
	ART (MOSAIC, PAINTING)	PROVIDED	NOT PROVIDED
	MULTI SCREEN (4/9/16)	PROVIDED	NOT PROVIDED
	EDIT SWITCH/SYNCHRO EDIT	PROVIDED	PROVIDED
	TIMER RECORDING PROGRAMMES	8 PROGRAMMES/1 YEAR	8 PROGRAMMES/1 YEAR
	TIMER BACKUP TIME	ABOUT 5 MINUTES	ABOUT 5 MINUTES
	PROGRAMMING WITH REMOTE CONTROL	PROVIDED	PROVIDED
	O.S.D	PROVIDED	NOT PROVIDED
	VPS (VIDEO PROGRAMME SYSTEM)	NOT PROVIDED/PROVIDED	NOT PROVIDED/PROVIDED
	CALENDAR DISPLAY	PROVIDED (100 YEARS)	NOT PROVIDED
	POWER OFF EJECT	PROVIDED	PROVIDED
	DIGITAL TRICK PLAY	PROVIDED	NOT PROVIDED
	CHANNEL TUNING	V.S TUNING (For UK)	V.S TUNING (For UK)
		F.S TUNING (For WG,AEP)	F.S TUNING (For WG,AEP)
	HEADPHONES JACK/PHONE LEVEL CONTROL	PROVIDED	NOT PROVIDED
	AUDIO MONITOR SELECTOR	PROVIDED	NOT PROVIDED
	MPX FILTER SWITCH	PROVIDED	NOT PROVIDED
	AUX INPUT SELECT SWITCH	PROVIDED	NOT PROVIDED
	REC LEVEL CONTROL	PROVIDED	NOT PROVIDED
CHASSIS	BASIC CHASSIS TYPE	———	———
	VIDEO HEADS	3 + Hi-Fi HEADS	3 HEADS
		REC/PB VIDEO : 57μm	REC/PB VIDEO: 57μm
		TRICK PLAY : 57μm	TRICK PLAY : 57μm
		Hi-Fi AUDIO REC/PB : 38μm	———
	CAPSTAN DRIVE SYSTEM	DIRECT DRIVE	DIRECT DRIVE
	HALF LOADING	PROVIDED	PROVIDED

WARNING [For WG/AEP]

- **Mains supply: AC 220V, 50 Hz only**





The ON/STANDBY switch located on the front panel of the VTR switches the VTR on and off, leaving the clock/timer facility unaffected.
Notice: The ON/STANDBY switch is secondarily connected and does not separate the apparatus from the mains supply in the switched-off position.

If the unit is to be left unattended for a long period and it is not intended to use the timer recording function, it is recommended that the unit be completely switched off and the plug removed. If you intend to record during your absence, remember there is no necessity for the TV receiver to be switched on.

- Do not remove panel covers by unscrewing. There are no user serviceable parts inside. Refer all servicing to qualified service personnel.
- To prevent fire or shock hazard, do not expose this unit to rain or moisture.
- It is permissible to record television programmes only in the event that third party copyrights and other rights are not violated.

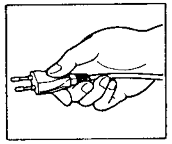
Note on colour broadcasting system

This unit is designed to receive programmes based on the PAL and DDR SECAM colour systems and to record and play back in these systems.
Recording and playback of video sources based on other colour systems cannot be guaranteed.

PRECAUTIONS [For WG/AEP]

On Safety

- Should any solid object or liquid fall into the cabinet, turn off the unit and have it checked by qualified personnel before operating it any further.
- To disconnect the mains lead, pull out the plug itself. Never pull the lead.



On Installation

- Choose a location where air can pass through the ventilation holes in the bottom, top and back of the unit to prevent it from overheating.
- Do not install the unit near heat sources such as radiators or air ducts or in a place subject to direct sunlight, excessive dust, mechanical vibration or shocks.
- Never bring a magnet or magnetized object near the VTR because it will adversely affect the performance of the VTR.
- Do not install the unit in an inclined position. The unit is designed for operation in a horizontal position.

On Operation

- Moisture condensation
  If you pour a cold liquid into a glass, water vapor in the air will condense on the surface of the glass. This is moisture condensation.
  Moisture condensation on the head drum, one of the most crucial parts of the VTR, will cause damage to the tape.
  The VTR should not be operated for at least 2 hours after being moved from a cold to a hot environment to avoid condensation from occuring on the head drum.

On Cleaning

- Be careful; when the surface of the case is wiped with a volatile agent such as benzine, alcohol, thinner, etc., or a chemically processed cloth, the surface finish may deteriorate or its coating may peel.

On Repacking

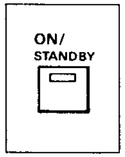
- It is wise for you to save the packing materials and box in case you ever need to ship or store your unit.

FEATURES [For WG/AEP]

- **4-hour video and 8-hour hi-fi recording with dynamic, superb stereo sound**
- **Digital video effects and OSD (on-screen display) function**
  - Picture-in-picture
  - Digital memory
  - Digital strobe
  - Digital multi strobe
  - Programme review
  - Calendar
  - Memory recall
  - Multi channel search
  - Multi auto index
  - Title making
  - Status display
- **8-Programme/1 year preset recording with memory backup**
- **Automatic controls for easier operation**
  - Auto Play immediately starts to play a tape without its safety tab
  - Auto Eject and Auto Tape Canceller eject cassette without its tab when recording
  - Auto Endless Play repeats playing tape from beginning to end
  - Auto Operate On turns system power on by simply inserting cassette
  - Auto Rewind/Rewind Shutoff automatically rewinds tape at its end and automatically shuts off at its beginning if the ON/STANDBY switch is pressed.
- **Index function** — convenient for locating the desired programme on your tape
- **Multi-function fluorescent display** — convenient for checking almost everything in the large window
- **Video programme system (VPS)** — no chance of missing your programme (Only for SLV-802, but adaptable for SLV-801)
- **Synchro editing** — Playback start/stop of one VTR can be activated in synchronization with recording start/stop of the other VTR.
- **Sharp, finely detailed pictures from High Quality (HQ) picture technology**
  HQ The Video Tape Recorder (VTR) with this marking incorporates high-quality picture technology and is compatible with any Video Tape Recorders bearing the VHS mark.
- New frequency synthesized tuner provides easy, preset tuning for up to 69 channels plus CATV and Hyper (satellite) reception.
- New instant recording timer (IRT) lets you quickly set the time to start recording and the length of recording time.

WARNING [For UK]

- **Mains supply: AC 240V, 50 Hz only**
  The ON/STANDBY switch located on the front panel of the VTR switches the VTR on and off, leaving the clock/timer facility unaffected.
  Notice: The ON/STANDBY switch is secondarily connected and does not separate the apparatus from the mains supply in the switched-off position.



  If the unit is to be left unattended for a long period and it is not intended to use the timer recording function, it is recommended that the unit be completely switched off and the plug removed. If you intend to record during your absence, remember there is no necessity for the TV receiver to be switched on.

- Do not remove panel covers by unscrewing. There are no user serviceable parts inside. Refer all servicing to qualified service personnel.
- To prevent fire or shock hazard, do not expose this unit to rain or moisture.
- It is permissible to record television programmes only in the event that third party copyrights and other rights are not violated.

IMPORTANT

The wires in this mains lead are coloured in accordance with the following code:

Blue:	Neutral
Brown:	Live

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug proceed as follows:
The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black. The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.

PRECAUTIONS [For UK]

On Safety

- Should any solid object or liquid fall into the cabinet, turn off the unit and have it checked by qualified personnel before operating it any further.
- To disconnect the mains lead, pull out the plug itself. Never pull the lead.

On Installation

- Choose a location where air can pass through the ventilation holes in the bottom, top and back of the unit to prevent it from overheating.
- Do not install the unit near heat sources such as radiators or air ducts or in a place subject to direct sunlight, excessive dust, mechanical vibration or shocks.
- Never bring a magnet or magnetized object near the VTR because it will adversely affect the performance of the VTR.
- Do not install the unit in an inclined position.
  The unit is designed for operation in a horizontal position.

On Operation

- Moisture condensation
  If you pour a cold liquid into a glass, water vapor in the air will condense on the surface of the glass. This is moisture condensation.
  Moisture condensation on the head drum, one of the most crucial parts of the VTR, will cause damage to the tape.
  The VTR should not be operated for at least 2 hours after being moved from a cold to a hot environment to avoid condensation from occuring on the head drum.

On Cleaning

- Be careful; when the surface of the case is wiped with a volatile agent such as benzine, alcohol, thinner, etc., or a chemically processed cloth, the surface finish may deteriorate or its coating may peel.

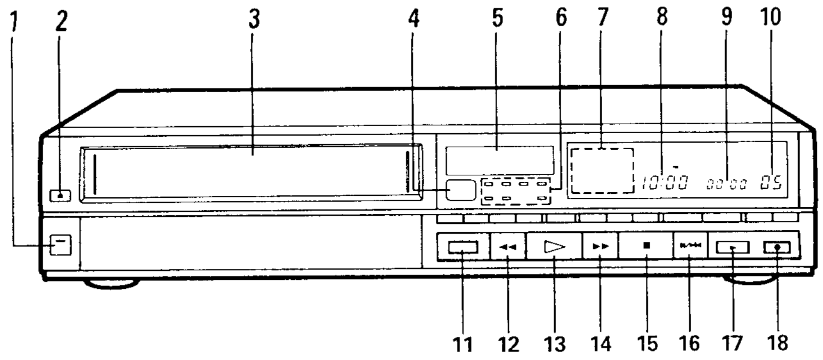
On Repacking

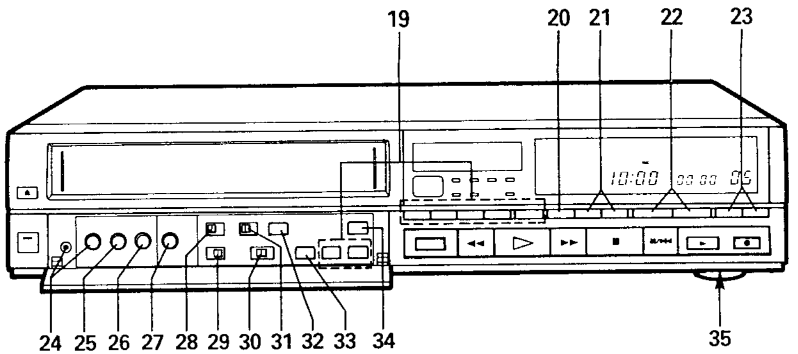
- It is wise for you to save the packing materials and box in case you ever need to ship or store your unit.

FEATURES [For UK]

- **4-hour video and 8-hour hi-fi recording with dynamic, superb stereo sound**
- **Digital video effects and OSD (on-screen display) function**
  - Picture-in-picture
  - Digital memory
  - Digital strobe
  - Digital multi strobe
  - Programme review
  - Calendar
  - Memory recall
  - Multi channel search
  - Multi auto index
  - Title making
  - Status display
- **8-programme/1 year preset recording with memory backup**
- **Automatic controls for easier operation**
  - Auto Play immediately starts to play a tape without its safety tab
  - Auto Eject and Auto Tape Canceller eject cassette without its tab when recording
  - Auto Endless Play repeats playing tape from beginning to end
  - Auto Operate On turns system power on by simply inserting cassette
  - Auto Rewind/Rewind Shutoff automatically rewinds tape at its end and automatically shuts off at its beginning if the ON/STANDBY switch is pressed.
- **Index function** – convenient for locating the desired programme on your tape
- **Multi-function fluorescent display** – convenient for checking almost everything in the large window
- **Synchro editing** – Playback start/stop of one VTR can be activated in synchronization with recording start/stop of the other VTR.
- **Sharp, finely detailed pictures from High Quality (HQ) picture technology**
  HQ **The Video Tape Recorder (VTR) with this marking incorporates VHS high-quality picture technology and is compatible with any Video Tape Recorders bearing the VHS mark.**
- New frequency synthesized tuner provides easy, preset tuning for up to 69 channels plus CATV and Hyper (satellite) reception.
- New instant recording timer (IRT) lets you quickly set the time to start recording and the length of recording time.

CONTROLS AND FUNCTIONS [For WG/AEP]





1. **ON/STANDBY switch and lamp**
   Press to turn system power on (the lamp lights up) and off.

2. **EJECT button**
   Press to remove the cassette.

3. **Cassette compartment**
   Insert a cassette in through the door, and loading will be completed automatically.
   Note: Power is turned on automatically when the cassette is loaded.

4. **Remote sensor**
   Receives infrared rays from the Remote Commander.

5. **PEAK PROGRAM METER**
   Shows the peak input levels of each audio channel during recording and the recorded levels during playback.

6. **Lamps**
   STEREO: Will light when tuned to a stereo broadcast.
   Hi-Fi: Lights when playing back tapes recorded with Hi-Fi VHS sound.
   A. (audio) DUB: Lights when dubbing audio signals.
   SYNC. (synchro) EDIT: Lights when the SYNCHRO EDIT button is pressed.
   MAIN·SUB: Light(s) according to the setting of the MAIN/SUB button on the Remote Commander.
   BILINGUAL: Will light when tuned to a bilingual broadcast.

7. **Mode indicators**
   - "[OO]" appears when a cassette is in the compartment.
   - "[PLAY]" appears during the playback mode.
   - "[REC]" appears during the record mode.
   - "◁◁" appears during the rewind mode and flashes during reverse picture search mode.
   - "▷▷" appears during the fast forward mode and flashes during forward picture search mode.
   - "▯▯" appears during the play/record pause mode.
   - "◷" appears when turning the power off and either the timer has been programmed or IRT is turned on.
   - "[INDEX]" appears when turning the index function on.

8. **Digital timer display**
   This normally shows the time and day of the week.

9. **Digital date/counter/remain display**
   This shows the current date when the VTR is turned off or shows the tape counter or remaining time when the VTR is turned on.

10. **Programme display**
    This shows the programme number corresponding to the programme selected.

11. **P in P button**
    Used for picture-in-picture display; this is also controlled from the Remote Commander (See page 18.)

12. **REW (rewind)/picture search button**
    Press to start rewind.
    Press this button during playback and reverse playback picture at high speed can be seen.

13. **PLAY button**
    Note: When the cassette (with erase prevention tab removed) is loaded, playback starts automatically.

14. **FF (fast forward)/picture search button**
    Press to activate fast forward.
    Press this button during playback and forward playback picture at high speed can be seen.

15. **STOP button**
    The STOP button must be pressed between "RECORD" and any other operation.

16. **PAUSE/STILL button**
    Press to pause during recording.
    Press to view a still picture during playback.
    Press again to release.

17. **SLOW button**
    Press this button during playback, and the tape is played back at slow speed.

18. **REC (record) button**
    Press this button to record.

19. **TUNING PRESET/CLOCK SET/TIMER SET/SET/NEXT/CLEAR buttons**

20. **REMAIN button**
    Press to switch from counter display to tape remain display.

21. **COUNTER RESET/MEMORY buttons**
    Press RESET to reset counter to "0000".
    Press MEMORY so "M" is indicated in the display, then fast forward or rewind the tape. The tape stops when the counter reaches approximately "0000".
    Note: Press MEMORY again to switch off the "M" indicator.

22. **PROGRAM select buttons**
    Select the TV programmes you wish to view or record by pressing these buttons.
    And you can also select the "AU" position* by pressing this button to record or watch the programme input at the EUROCONNECTOR or VIDEO/AUDIO IN jacks.
    * One programme position either higher or lower outside the range of your preset programmes.

23. **IRT (instant recording timer) START/LENGTH buttons**
    IRT allows unattended recording.
    Timer will switch the VTR off automatically at a preselected time. This is convenient when you go out during recording.

24. **HEADPHONES jack (stereo mini type) and PHONE LEVEL control**
    Connect stereo headphones (with stereo mini jack) here. Adjust the volume with the PHONE LEVEL control.

25. **SHARPNESS control**
    Adjust the sharpness so the picture is easy to see.

26. **TRACKING control**
    Rotate this control to minimize noise in playback.

27. **REC LEVEL control**
    Turn to adjust the audio recording level. Normally set to the centre detent position.

28. **MPX FILTER switch**
    Set to ON when recording an FM programme to reduce the slight noise from the FM tuner. Set to OFF when recording sound other than FM.

29. **AUX (auxiliary) input selector**
    Set to AV when recording signals input through the EUROCONNECTOR, and set to LINE when recording signals from the AUDIO IN/VIDEO IN jacks.

30. **AUDIO MONITOR selector**
    Select the sound to be monitored.
    Hi-Fi: Normally set to this position for VHS hi-fi sound.
    MIX: To monitor the sound recorded on both the video track in VHS hi-fi and the linear audio track.
    NORM: To monitor the sound recorded on the linear audio track only.

31. **EDIT switch**
    Normally keep this switch at the left position.
    When editing a tape onto another recorder, set the switch to the right "EDIT" position. The edited tape will provide clearer pictures. This function does not work when using this VTR for recording.

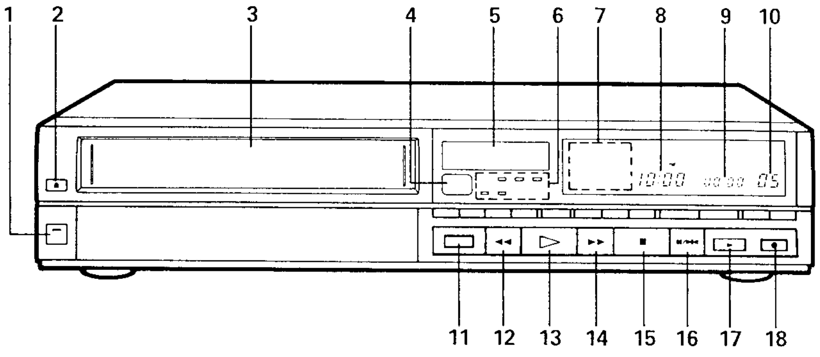
32. **SYNCHRO EDIT button**
    Press to start the playback on this VTR and the recording of the connected VTR (or vice versa; recording on this VTR and playback on the other VTR). When pressed, SYNCHRO EDIT lamp lights up.

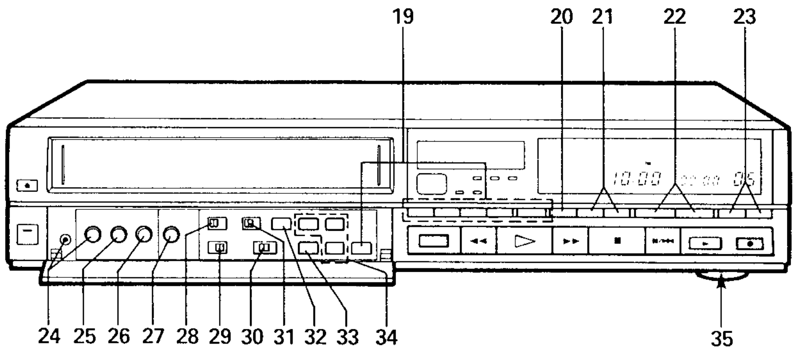
33. **A. (audio) DUB button**
    Use this button to dub new sound on the previously recorded tape.

34. **VPS OFF button (Only for SLV-802)**
    See page 35 for complete information.
    NOTE: This button is also provided on the SLV-801 but it is not effective because the SLV-801 does not incorporate a VPS circuit. However, the SLV-801 is adaptable for the VPS function. Consult your nearest dealer.

35. **RESET switch** (on the bottom)
    Press this switch if the digital display malfunctions or no operation mode can be engaged to reset the display. Set the clock to the correct present time.

CONTROLS AND FUNCTIONS [For UK]





1. **ON/STANDBY switch and lamp**
   Press to turn system power on (the lamp lights up) and off.
2. **EJECT button**
   Press to remove the cassette.
3. **Cassette compartment**
   Insert a cassette in through the door, and loading will be completed automatically.
   Note: Power is turned on automatically when the cassette is loaded.
4. **Remote sensor**
   Receives infrared rays from the Remote Commander.
5. **PEAK PROGRAM METER**
   Shows the peak input levels of each audio channel during recording and the recorded levels during playback.
6. **Lamps**
   Hi-Fi: Lights when playing back tapes recorded with Hi-Fi VHS sound.
   A. (audio) DUB: Lights when dubbing audio signals.
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   MAIN•SUB: Light(s) according to the setting of the MAIN/SUB button on the Remote Commander.
7. **Mode indicators**
   - "[σo]" appears when a cassette is in the compartment.
   - "[PLAY]" appears during the playback mode.
   - "[REC]" appears during the record mode.
   - " ◁◁ " appears during the rewind mode and flashes during reverse picture search mode.
   - " ▷▷ " appears during the fast forward mode and flashes during forward picture search mode.
   - " ▯▯ " appears during the play/record pause mode.
   - " ◷ " appears when turning the power off and either the timer has been programmed or IRT is turned on.
   - "[INDEX]" appears when turning the index function on.
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   This normally shows the time and day of the week.
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    This shows the programme number corresponding to the programme selected.
11. **P in P button**
    Used for picture-in-picture display; this is also controlled from the Remote Commander (See page 18.)
12. **REW (rewind)/picture search button**
    Press to start rewind.
    Press this button during playback and reverse playback picture at high speed can be seen.
13. **PLAY button**
    Note: When the cassette (with erase prevention tab removed) is loaded, playback starts automatically.
14. **FF (fast forward)/picture search button**
    Press to activate fast forward.
    Press this button during playback and forward playback picture at high speed can be seen.
15. **STOP button**
    The STOP button must be pressed between "RECORD" and any other operation.
16. **PAUSE/STILL button**
    Press to pause during recording.
    Press to view a still picture during playback.
    Press again to release.
17. **SLOW button**
    Press this button during playback, and the tape is played back at slow speed.
18. **REC (record) button**
    Press this button to record.
19. **CLOCK SET/TIMER SET/SET/NEXT/CLEAR buttons**
20. **REMAIN button**
    Press to switch from counter display to tape remain display.
21. **COUNTER RESET/MEMORY buttons**
    Press RESET to reset counter to "0000".
    Press MEMORY so "M" is indicated in the display, then fast forward or rewind the tape. The tape stops when the counter reaches approximately "0000".
    Note: Press MEMORY again to switch off the "M" indicator.
22. **PROGRAM select buttons**
    Select the TV programmes you wish to view or record by pressing these buttons.
    And you can also select the "AU" position* by pressing this button to record or watch the programme input at the EUROCONNECTOR or VIDEO/AUDIO IN jacks.
    * One programme position either higher or lower outside the range of your preset programmes.
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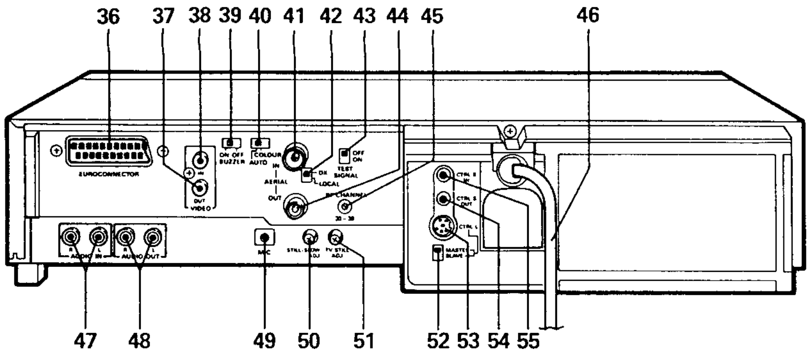
    IRT allows unattended recording.
    Timer will switch the VTR off automatically at a preselected time. This is convenient when you go out during recording.
24. **HEADPHONES jack (stereo mini type) and PHONE LEVEL control**
    Connect stereo headphones (with stereo mini jack) here. Adjust the volume with the PHONE LEVEL control.
25. **SHARPNESS control**
    Adjust the sharpness so the picture is easy to see.
26. **TRACKING control**
    Rotate this control to minimize noise in playback.
27. **REC LEVEL control**
    Turn to adjust the audio recording level. Normally set to the centre detent position.
28. **MPX FILTER switch**
    Set to ON when recording an FM programme to reduce the slight noise from the FM tuner. Set to OFF when recording sound other than FM.
29. **AUX (auxiliary) input selector**
    Set to AV when recording signals input through the EUROCONNECTOR, and set to LINE when recording signals from the AUDIO IN/VIDEO IN jacks.
30. **AUDIO MONITOR selector**
    Select the sound to be monitored.
    Hi-Fi: Normally set to this position for VHS hi-fi sound.
    MIX: To monitor the sound recorded on both the video track in VHS hi-fi and the linear audio track.
    NORM: To monitor the sound recorded on the linear audio track only.
31. **EDIT switch**
    Normally keep this switch at the left position.
    When editing a tape onto another recorder, set the switch to the right "EDIT" position. The edited tape will provide clearer pictures. This function does not work when using this VTR for recording.
32. **SYNCHRO EDIT button**
    Press to start the playback on this VTR and the recording of the connected VTR (or vice versa; recording on this VTR and playback on the other VTR). When pressed, SYNCHRO EDIT lamp lights up.
33. **A. (audio) DUB button**
    Use this button to dub new sound on the previously recorded tape.
34. **TUNING PRESET/AFC/SKIP buttons**
35. **RESET switch (on the bottom)**
    Press this switch if the digital display malfunctions or no operation mode can be engaged to reset the display. Set the clock to the correct present time.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EUROCONNECTOR
VIDEO
AERIAL
IN
OUT
TEST SIGNAL
RF CHANNEL
LOCAL
DX
BUZZER
AUTO
COLOUR
ON
OFF
MIC
STILL/SLOW ADJ
TV STILL ADJ
CTRL S IN
CTRL S OUT
CTRL L
MASTER SLAVE
AUDIO IN
AUDIO OUT

36. **EUROCONNECTOR**
For connection with a VTR or a TV with a 21-pin connector or audio/video input/output jacks using an appropriate cable.

37. **VIDEO OUT (output) jack** (phono type)

38. **VIDEO IN (input) jack** (phono type)

39. **BUZZER switch**
When this switch is on, a beep sound will be heard when any VTR operation button is pressed. This is a convenience in operation.
To stop this function, turn the switch off.

40. **AUTO/COLOUR switch**
AUTO: Circuits are automatically switched to colour or black/white mode. Set to this position when playing or recording a PAL signal.
COLOUR: When recording a PAL signal in an area far from broadcasting station, the recorded picture may lose colour. In this case, set to this position in recording and playback.

41. **AERIAL IN socket**
Connect external aerial.

42. **DX/LOCAL switch**
Generally set to the DX position.
Set to "LOCAL" when interference occurs in an area with a strong signal.

43. **TEST SIGNAL switch**
Set to ON and check that the video channel of your TV set is correct. After checking, set this switch to OFF.

44. **AERIAL OUT socket**
Connect to TV aerial input.

45. **RF CHANNEL control**
Set TEST SIGNAL to "ON" and rotate this control to set the video channel correctly.

46. **Mains lead**

47. **AUDIO IN (input) jacks** (phono type)

48. **AUDIO OUT (output) jacks** (phono type)

49. **MIC jack** (mini type)
Connect the microphone for audio dubbing.

50. **STILL/SLOW ADJ (adjustment) control**
If you see vertical shaking on the TV screen in the still or slow playback mode, rotate this control to minimize shaking.

51. **TV STILL ADJ (adjust) control**
Adjust this control when the picture stored in memory shakes up and down.

52. **MASTER/SLAVE selector**
When editing a tape using the CONTROL L connector, set to either position:
MASTER: to control other equipment connected by the CONTROL L connector.
SLAVE: to be controlled by other equipment (such as RM-E100V editing controller) having CONTROL L connector.

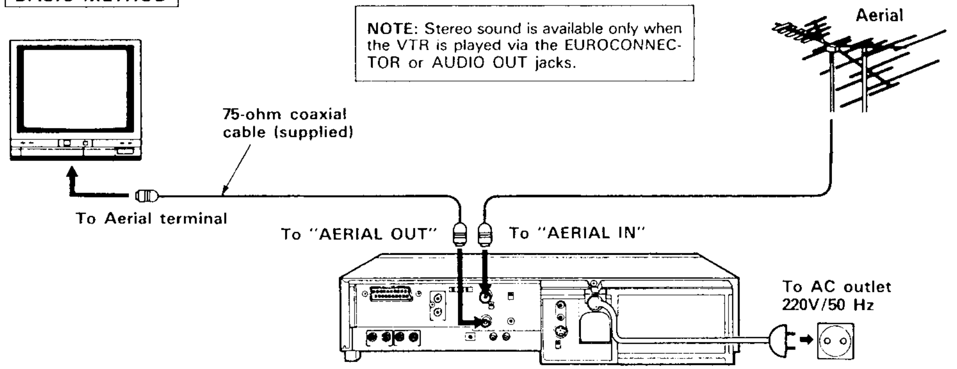
53. **CTRL (control) L connector** (5-pin)
Connect to the CONTROL L or REMOTE connector of other Sony products.

54. **CTRL (control) S OUT jack** (mini type)
Connect to the CONTROL S input jack of other Sony products.

55. **CTRL (control) S IN jack** (mini type)
Connect to the CONTROL S output jack of other Sony products.
This is especially convenient for operating the VTR with the Remote Commander pointed to the remote sensor of the TV, when the VTR is located apart from the TV.

INSTALLATION [For WG/AEP]

BASIC METHOD

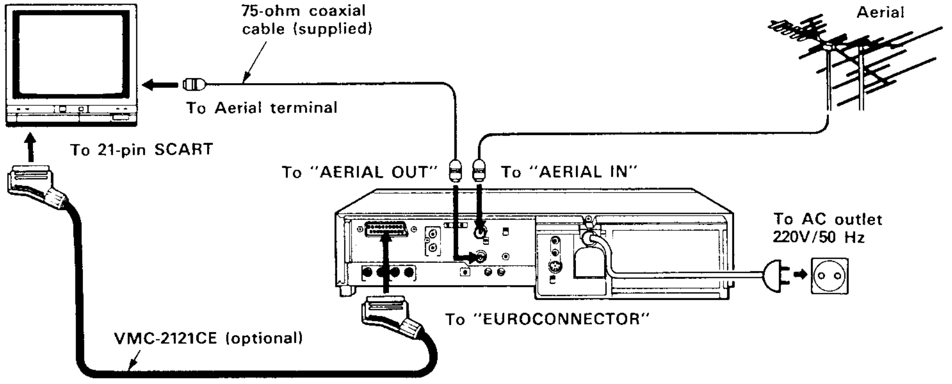

NOTE: Stereo sound is available only when the VTR is played via the EUROCONNECTOR or AUDIO OUT jacks.

Aerial
75-ohm coaxial cable (supplied)
To Aerial terminal
To "AERIAL OUT"
To "AERIAL IN"
To AC outlet 220V/50 Hz

1. Remove the coaxial aerial cable from your TV set. Insert this cable into the terminal marked "AERIAL IN" on the VTR.
2. Connect your TV to the AERIAL OUT terminal with the supplied coaxial connector cable.
3. Plug into the mains.

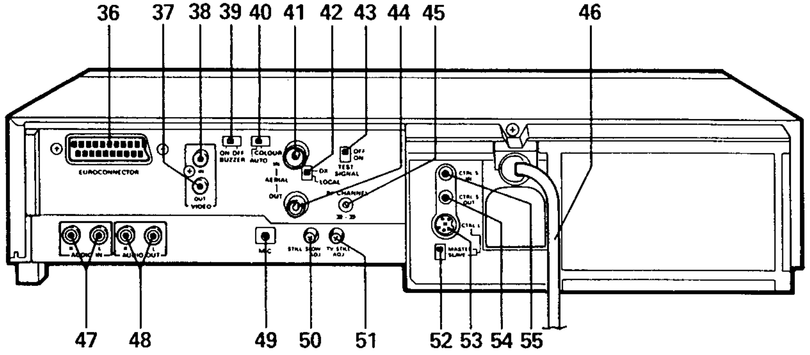
APPLICATION METHOD

When your VTR is connected to a TV set provided with a 21-pin SCART or DIN connector, follow the connections below. You can record and play back much better pictures than using the above connections.
Note: Some TV sets are not equipped with a 21-pin SCART or DIN connector. In such cases, you must use the BASIC METHOD for connections.


75-ohm coaxial cable (supplied)
Aerial
To Aerial terminal
To 21-pin SCART
To "AERIAL OUT"
To "AERIAL IN"
To AC outlet 220V/50 Hz
To "EUROCONNECTOR"
VMC-2121CE (optional)

1. Make connections 1 to 3 in BASIC METHOD.
2. Connect the EUROCONNECTOR on the rear of the VTR and the 21-pin SCART or DIN of the TV set.

With this connection method:
- During playback, the signals from the EUROCONNECTOR of the VTR are fed to your TV.
- You can record the programme selected on the TV set. In this case, press the PROGRAM select button (forward or reverse) so as to have "AU" indication light up on the VTR display instead of a programme number, then set the AUX input selector to AV.
  Note: You can also select "AU" by pressing buttons 9 and 1 on the Remote Commander.



36. **EUROCONNECTOR**
For connection with a VTR or a TV with a 21-pin connector or audio/video input/output jacks using an appropriate cable.

37. **VIDEO OUT (output) jack** (phono type)

38. **VIDEO IN (input) jack** (phono type)

39. **BUZZER switch**
When this switch is on, a beep sound will be heard when any VTR operation button is pressed. This is a convenience in operation.
To stop this function, turn the switch off.

40. **AUTO/COLOUR switch**
AUTO: Circuits are automatically switched to colour or black/white mode. Set to this position when playing or recording a PAL signal.
COLOUR: When recording a PAL signal in an area far from broadcasting station, the recorded picture may lose colour. In this case, set to this position in recording and playback.

41. **AERIAL IN socket**
Connect external aerial.

42. **DX/LOCAL switch**
Generally set to the DX position.
Set to "LOCAL" when interference occurs in an area with a strong signal.

43. **TEST SIGNAL switch**
Set to ON and check that the video channel of your TV set is correct. After checking, set this switch to OFF.

44. **AERIAL OUT socket**
Connect to TV aerial input.

45. **RF CHANNEL control**
Set TEST SIGNAL to "ON" and rotate this control to set the video channel correctly.

46. Mains lead

47. **AUDIO IN (input) jacks** (phono type)

48. **AUDIO OUT (output) jacks** (phono type)

49. **MIC jack** (mini type)
Connect the microphone for audio dubbing.

50. **STILL/SLOW ADJ (adjustment) control**
If you see vertical shaking on the TV screen in the still or slow playback mode, rotate this control to minimize shaking.

51. **TV STILL ADJ (adjust) control**
Adjust this control when the picture stored in memory shakes up and down.

52. **MASTER/SLAVE selector**
When editing a tape using the CONTROL L connector, set to either position:
MASTER: to control other equipment connected by the CONTROL L connector.
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Connect to the CONTROL L or REMOTE connector of other Sony products.

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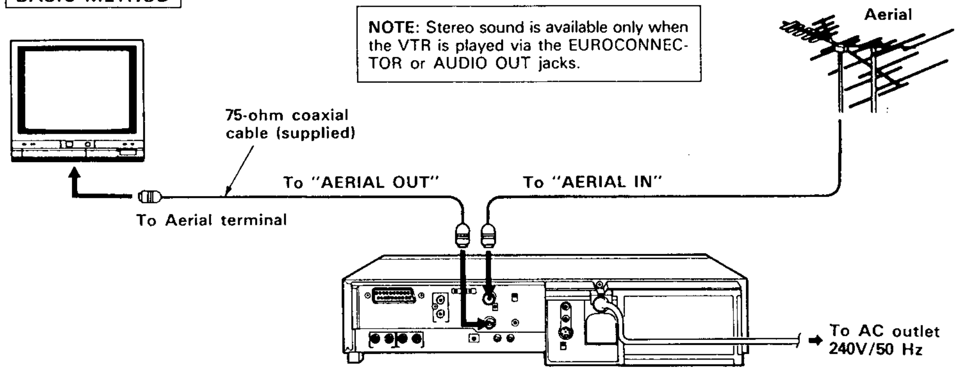
55. **CTRL (control) S IN jack** (mini type)
Connect to the CONTROL S output jack of other Sony products.
This is especially convenient for operating the VTR with the Remote Commander pointed to the remote sensor of the TV, when the VTR is located apart from the TV.

INSTALLATION [For UK]

BASIC METHOD

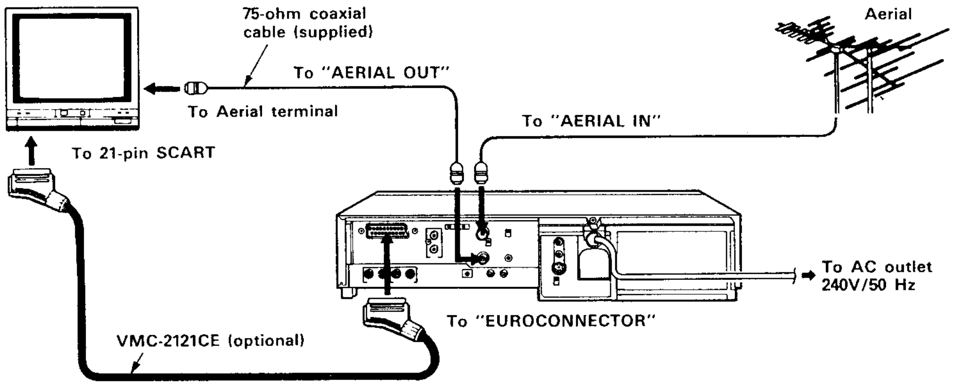
NOTE: Stereo sound is available only when the VTR is played via the EUROCONNECTOR or AUDIO OUT jacks.



1. Remove the coaxial aerial cable from your TV set. Insert this cable into the terminal marked "AERIAL IN" on the VTR.
2. Connect your TV to the AERIAL OUT terminal with the supplied coaxial connector cable.
3. Plug into the mains.

APPLICATION METHOD

When your VTR is connected to a TV set provided with a 21-pin SCART or DIN connector, follow the connections below. You can record and play back much better pictures than using the above connections.
Note: Some TV sets are not equipped with a 21-pin SCART or DIN connector. In such cases, you must use the BASIC METHOD for connections.

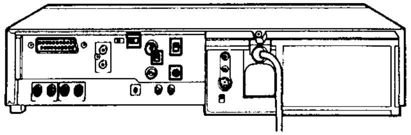


1. Make connections 1 to 3 in BASIC METHOD.
2. Connect the EUROCONNECTOR on the rear of the VTR and the 21-pin SCART or DIN of the TV set.

With this connection method:
- During playback, the signals from the EUROCONNECTOR of the VTR are fed to your TV.
- You can record the programme selected on the TV set. In this case, press the PROGRAM select button (forward or reverse) so as to have "AU" indication light up on the VTR display instead of a programme number, then set the AUX input selector to AV.
Note: You can also select "AU" by pressing buttons 9 and 1 on the Remote Commander.

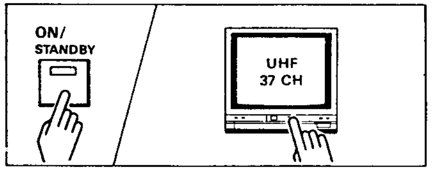
VIDEO CHANNEL SETTING
[For WG/AEP]

The RF converter changes the video and audio signals from a previously recorded video tape during playback to the same type of signal used for TV broadcasts. The RF converter output in this unit is pre-set prior to shipment to UHF channel 37.



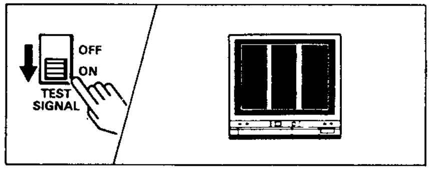
User's controls

1 Turn on the VTR and TV, then set the TV to UHF channel 37.



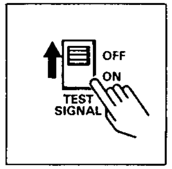
If your TV has a channel button marked "A/V", you can use this channel instead of UHF channel 37.

2 Set the TEST SIGNAL switch to ON.

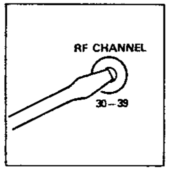


The test pattern appears on the TV screen.
Fine tune your TV until the test pattern is received clearly.

3 After completing adjustment, set the TEST SIGNAL switch to OFF.



NOTE:
If it is not possible to correctly tune to the test pattern or channel 37 is used for broadcasting in your area, adjust the RF converter output with the RF channel control using the supplied screwdriver and readjust your TV until the test pattern is observed.
For a higher channel number, turn anticlockwise.
For a lower channel, turn clockwise.

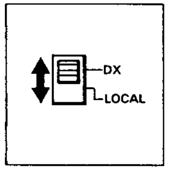


When connecting the VTR to a TV set provided with auto-tuning and the video channel cannot be set, operate as follows:

1. Remove the aerial cable from the AERIAL IN terminal of the VTR.
2. Leave the TEST SIGNAL switch "OFF".
3. Play back a blank tape.
4. Press the PAUSE/STILL button to obtain the pause mode.
5. Press the Auto-tuning button of the TV.
6. Auto-tuning starts and it stops at video channel 37. **Note:** The auto-tuning indicator of the TV set changes to an exact tuning indicator.
7. Set the channel memory of the TV to ON and store the channel which was set in item 6.
8. Set the TEST SIGNAL switch to "ON" and check that the picture appears on the TV screen. Now, the video channel of TV has been set properly.
9. Return the TEST SIGNAL switch to "OFF".
10. Reconnect the aerial cable to the VTR.

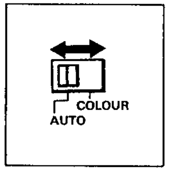
DX/LOCAL switch

The DX/LOCAL switch located on the rear panel of the VTR is used to adjust the reception of the signal from the tuner section. If the image develops wavy lines during the reception for a broadcast from a local TV station, it may be that the signal reception is too strong.
In this case, set this switch to LOCAL to attenuate the intensity of the signal.
Normally leave this switch in DX position.



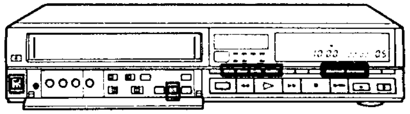
AUTO/COLOUR switch

This switch is located on the back of the VTR.
AUTO: Normally leave the switch in this position for reception and playback.
COLOUR: When recording a PAL signal in the area very far from broadcasting station, the recorded picture may lose colour. In this case, set the switch to this position in recording and playback.



PRE-TUNING OF BUILT-IN TV TUNER
[For WG/AEP]

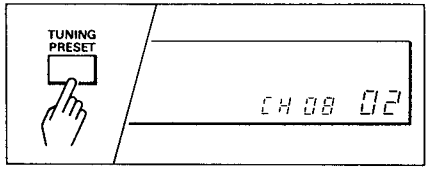
This VTR incorporates a complete television tuner with the required tuning controls. Once you have pre-tuned to preferred stations, you can select any of them by merely pressing the PROGRAM select button.
Before pre-tuning TV stations, set the clock time.



User's controls

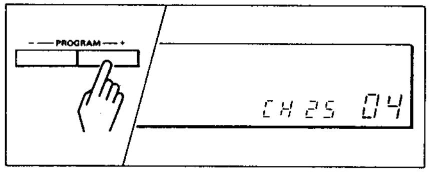
1 Turn on the VTR and the TV, then set the TV to the pre-tuned video channel.

2 Press the TUNING PRESET button once.



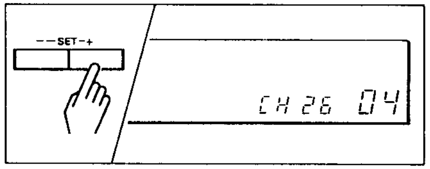
The display indication changes from the clock time display to the band indicator display.
Note: Pressing the button twice will lock the display. If you have pressed it twice, press it once more.

3 Press the PROGRAM select button on the VTR to select the programme number to be memorized.



For example, the above diagram shows that programme 4 has been selected.
Note: The Programme Number Display can be now consecutively selected from "01" through "69" and "AU" by pressing the PROGRAM select button either upward or downward. In this case, the Programme Number may be any number.

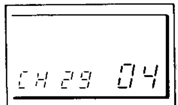
4 Press and release the SET button (Forward or Reverse) to start tuning.



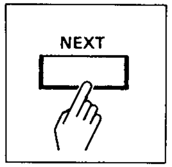
At a station that is broadcasting, the picture appears on the TV screen. If the station received is different from that to be preset, press SET button (Forward or Reverse) again.
At the next station, the searching will stop and the new station can be preset. Repeat this until the desired station is reached.

Notes:
- Press the Forward SET (+) button; channels are scanned in the order VHF (E2 – E12) → UHF (E21 – E69) → CATV (S1 – S20) → HYPER BAND (S21 – S41) → VHF (S01 – S05); the colon (:) blinks when scanning CATV and HYPER channels. CH: 42 through CH: 46 show channels S01 – S05.
- Press Reverse SET (–) button; channels are searched in the reverse order to the above.

VHF (E2 – E12) & UHF (E21 – E69) Channels Direct Preset
Press the 10 key buttons on the Remote Commander instead of step 4 to preset desired VHF and UHF channels.
To preset UHF channel 29 in the programme position 04, for example, press the PROGRAM select button to display the programme position "04" (in step 3) then press [2] [9] on the Remote Commander.



5 Press the NEXT button when the desired station is reached.
"– –" will be displayed.
Note: If the TV programme of broadcast by a preset channel does not appear clearly, press the Forward or Reverse SET (+ or –) button to fine tune the channel. **After fine tuning is completed, press the NEXT button again.**



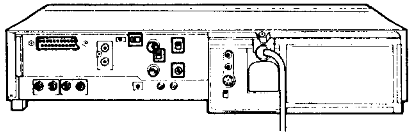
6 Follow the same steps as explained in steps 3 through 5 above for other programmes.
You can preset up to 69 programmes in memory.

7 After having completed tuning all programme memories you want, press the TUNING PRESET button once again.

These programmes preset in memory as shown in the above can be selected by the PROGRAM select buttons on the VTR.

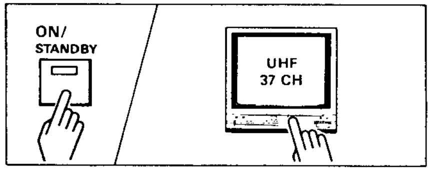
VIDEO CHANNEL SETTING [For UK]

The RF converter changes the video and audio signals from a previously recorded video tape during playback to the same type of signal used for TV broadcasts. The RF converter output in this unit is pre-set prior to shipment to UHF channel 37.



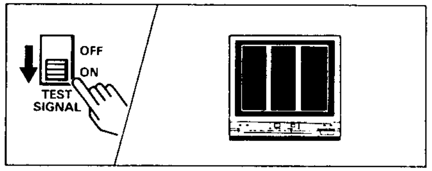
User's controls

1 Turn on the VTR and TV, then set the TV to UHF channel 37.



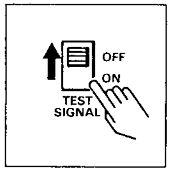
If your TV has a channel button marked "A/V", you can use this channel instead of UHF channel 37.

2 Set the TEST SIGNAL switch to ON.

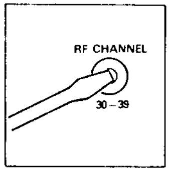


The test pattern appears on the TV screen.
Fine tune your TV until the test pattern is received clearly.

3 After completing adjustment, set the TEST SIGNAL switch to OFF.



NOTE:
If it is not possible to correctly tune to the test pattern or channel 37 is used for broadcasting in your area, adjust the RF converter output with the RF channel control using the supplied screwdriver and readjust your TV until the test pattern is observed.



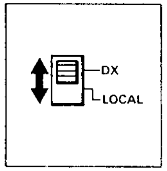
For a higher channel number, turn anticlockwise.
For a lower channel, turn clockwise.

When connecting the VTR to a TV set provided with auto-tuning and the video channel cannot be set, operate as follows:

1. Remove the aerial cable from the AERIAL IN terminal of the VTR.
2. Leave the TEST SIGNAL switch "OFF".
3. Play back a blank tape.
4. Press the PAUSE/STILL button to obtain the pause mode.
5. Press the Auto-tuning button of the TV.
6. Auto-tuning starts and it stops at video channel 37.
   Note: The auto-tuning indicator of the TV set changes to an exact tuning indicator.
7. Set the channel memory of the TV to ON and store the channel which was set in item 6.
8. Set the TEST SIGNAL switch to "ON" and check that the picture appears on the TV screen.
   Now, the video channel of TV has been set properly.
9. Return the TEST SIGNAL switch to "OFF".
10. Reconnect the aerial cable to the VTR.

DX/LOCAL switch

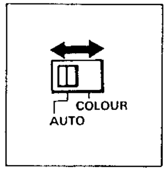
The DX/LOCAL switch located on the rear panel of the VTR is used to adjust the reception of the signal from the tuner section. If the image develops wavy lines during the reception for a broadcast from a local TV station, it may be that the signal reception is too strong.



In this case, set this switch to LOCAL to attenuate the intensity of the signal.
Normally leave this switch in DX position.

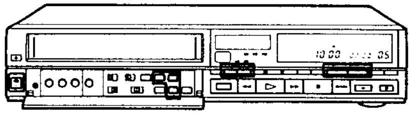
AUTO/COLOUR switch

This switch is located on the back of the VTR.
AUTO: Normally leave the switch in this position for reception and playback.
COLOUR: When recording a PAL signal in the area very far from broadcasting station, the recorded picture may lose colour. In this case, set the switch to this position in recording and playback.



PRE-TUNING OF BUILT-IN TV TUNER [For UK]

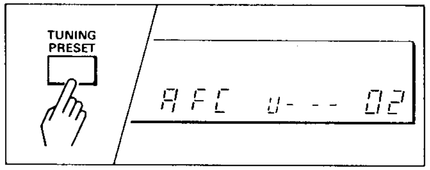
This VTR incorporates a complete television tuner with the required tuning controls. Once you have pre-tuned to preferred stations, you can select any of them by merely pressing the PROGRAM select button.
Before pre-tuning TV stations, set the clock time.



User's controls

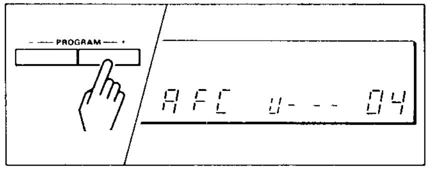
1 Turn on VTR and TV, then set TV to the pre-tuned video channel.

2 Press the TUNING PRESET button once.



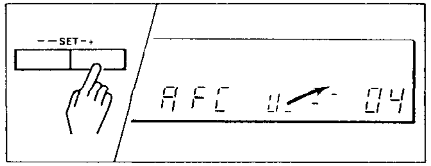
The display indication changes from the clock time display to the band indicator display.
Note: Pressing the button twice will lock the display. If you have pressed it twice, press it once more.

3 Press the PROGRAM select button on VTR to select the programme number to be memorized.



For example, the above diagram shows that programme 4 has been selected.
Notes:
1. The Programme Number Display can be now consecutively selected from "00" through "73" and then "95" through "99" and "AU" by pressing the PROGRAM select button either upward or downward. In this case, Programme Number may be any number.
2. When "AFC" is not indicated in the display, press AFC button to display "AFC".

4 Press and release the Forward SET (+) button to start tuning.



The built-in tuner starts searching from the lowest to highest frequencies, and "—" appears in sequence in the direction of the arrow during searching.
At a station that is broadcasting, the picture appears on the TV screen. If the station received is different from that to be preset, press Forward SET button again.
At the next station, the searching will stop and the new station can be preset. Repeat this until the desired station is reached.

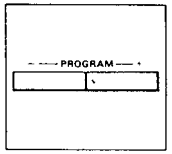
5 Follow the same steps as explained in steps 3 and 4 above for other programmes.
You can preset up to 79 programmes in memory.

6 After having completed tuning all programme memories you want, press the TUNING PRESET button once again.

These programmes preset in memory as shown in the above can be selected by the PROGRAM select buttons on the VTR.

Programme selection

The programme up and down controls on the VTR permit advancing the tuner directly to the next higher or lower programme.

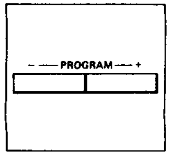


AFC (Automatic Frequency Control)

Since this unit has an AFC circuit, when a programme is preset following the above procedure, the AFC turns on automatically and you can receive the signal in optimum condition.
If a TV channel signal is marginal due to graininess or ghosting, the picture may sometimes by improved by manually tuning for best picture and then defeating the AFC action. To turn AFC off, follow the procedure below.

Programme selection

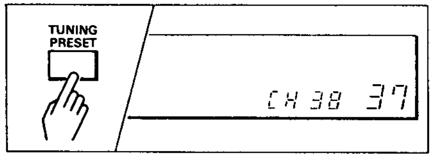
The programme up and down controls on the VTR permit advancing the tuner directly to the next higher or lower programme number.



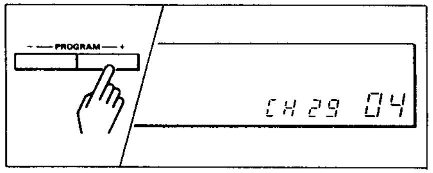
Eliminating unwanted preset programmes

You can rearrange the desired programmes by eliminating unwanted preset programmes for up/down tuning.

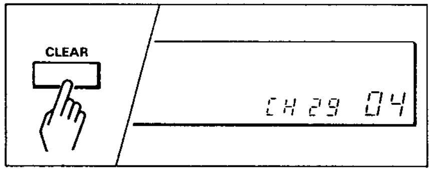
1 Press the TUNING PRESET button once.


TUNING PRESET
CH 38 37

2 Press the PROGRAM select buttons until an unwanted programme is found.


– —PROGRAM— +
CH 29 04

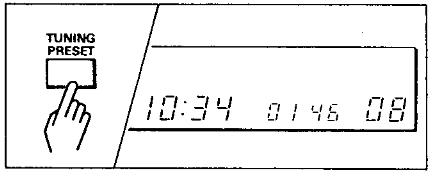
3 Press the CLEAR button once.


CLEAR
CH 29 04

Sound will go off indicating the programme has been erased from memory.

4 Repeat steps 2 and 3 until all unwanted programmes have been erased.

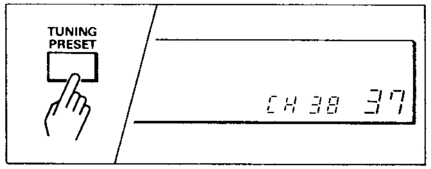
5 After eliminating them, press the TUNING PRESET button once again.


TUNING PRESET
10:34 01 46 08

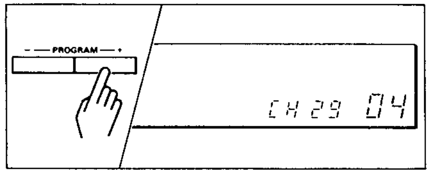
Adding programmes

You can preset programmes again which have previously been eliminated because they were unwanted.

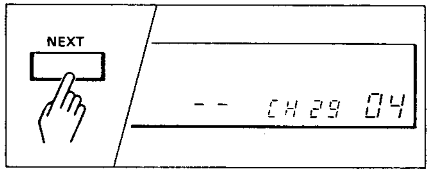
1 Press the TUNING PRESET button once.


TUNING PRESET
CH 38 37

2 Press the PROGRAM select buttons until the programme which has been previously eliminated and you desire to preset again is found.


– —PROGRAM— +
CH 29 04

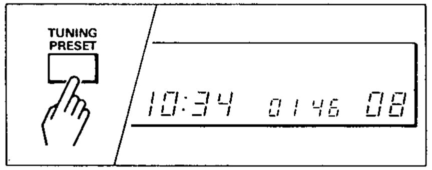
3 Press the NEXT button.


NEXT
- - CH 29 04

Sound will come on indicating the programme has been added to memory.

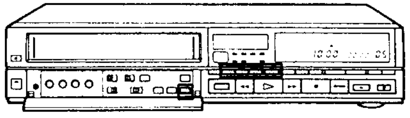
4 Repeat step 2 and 3 for other programmes if desired.

5 After adding programmes, press the TUNING PRESET button once again.


TUNING PRESET
10:34 01 46 08

CLOCK TIME SETTING

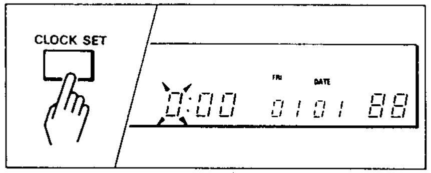
The built-in digital clock is based on a 24-hour cycle and gives you a constant readout of the time and day.



User's controls

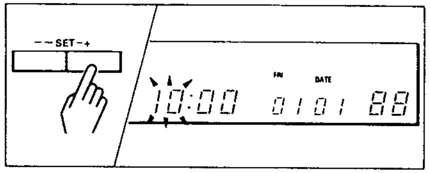
- When the MAINS lead is plugged in for the first time, "–:– –" and "DATE –– ––" will appear in the display.

1 Press the CLOCK SET button.


CLOCK SET
FRI DATE
0:00 01 01 88

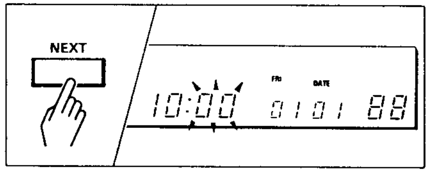
"0" hour starts flashing.

2 Press the SET button (Forward or Reverse) to set the present hour.


– –SET– +
FRI DATE
10:00 01 01 88

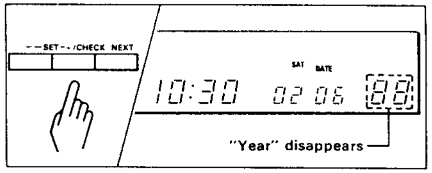
Hold the button down to advance rapidly.

3 Press the NEXT button when the present hour appears.
"00" minutes starts flashing.


NEXT
FRI DATE
10:00 01 01 88

For example, the diagram shows that "10" hour has been set.

4 Repeat steps 2 and 3 to set minute, day, month and year.


– –SET– +/CHECK NEXT
SAT DATE
10:30 02 06 88
"Year" disappears

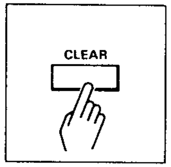
The day of week appears automatically after the year has been entered.
The year disappears from the display when the NEXT button is pressed.

For example, the diagram shows that 10:30 SAT, 2 of June 1988 have been set.

Now the clock has been set to the correct time and date.

To correct an error during setting

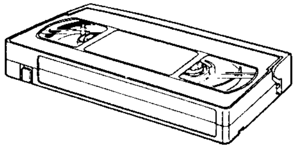
You can correct an error in the setting any time before the last step by pressing the CLEAR button repeatedly until the digit to be corrected is flashing. Then enter the correct digit and continue the setting sequence.



Notes:

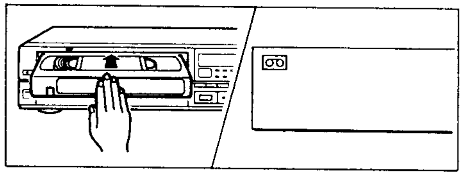
- This VTR has a built-in power failure compensation circuit. If a power interruption of less than 15 minutes occurs, the clock time will not be lost.
- The digital display is bright when the ON/STANDBY switch is turned ON and automatically becomes dim when the switch is off.

CASSETTE TAPES



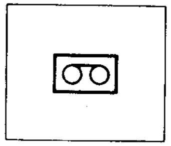
Insertion

Push the cassette through the door until the VTR mechanism pulls it into the compartment.



VTR power automatically turns on and the TAPE-IN indicator ⌧ turns on when the cassette is in place.

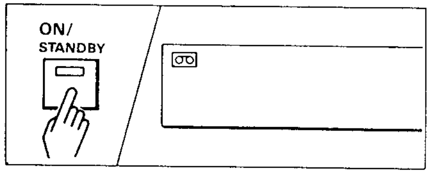
TAPE-IN indicator



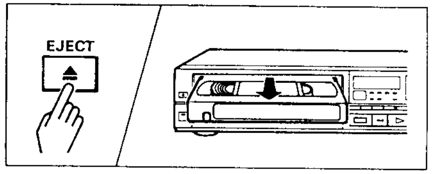
- Will light when the cassette is in the VTR regardless of turning the ON/STANDBY switch on and off.
- Will flash for approx. 5 seconds to warn you to insert a cassette when the ON/STANDBY switch is turned on or the REC or PLAY button is pressed if the cassette is not in the VTR.

Removal

1 Turn the ON/STANDBY switch on.



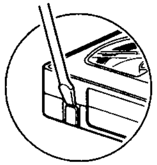
2 Press the EJECT button.



The cassette will come partially out of the compartment so you can pull it out.

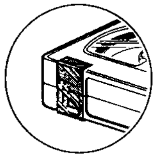
- The TAPE-IN indicator ⌧ turns off when the cassett is ejected.

To avoid erasing a recording



Break off the safety tab using a screwdriver or similar tool

To re-record on a cassette which has its safety tab removed



Cover the hole with cellophane tape

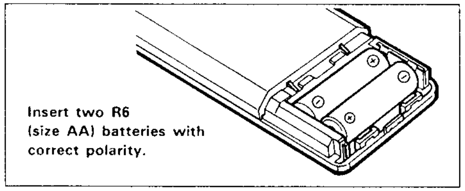
Remember that:

- The VTR automatically enters the playback mode when a cassette without a safety tab is inserted.
- The VTR automatically ejects the cassette if the REC button is pressed when a cassette without a safety tab is in the VTR.
- *Be sure to check its safety tab before inserting a* cassette for the above reasons.

REMOTE OPERATION

You can operate the VTR from a distance using the supplied Remote Commander which performs the same functions as the corresponding buttons on the VTR.

Power source of the Remote Commander


Insert two R6
(size AA) batteries with
correct polarity.

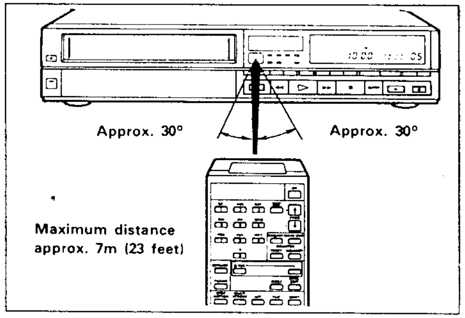
Battery life

In normal operation, batteries will last for about six months. If the operating range of the Remote Commander becomes noticeably short, replace the batteries with new ones.

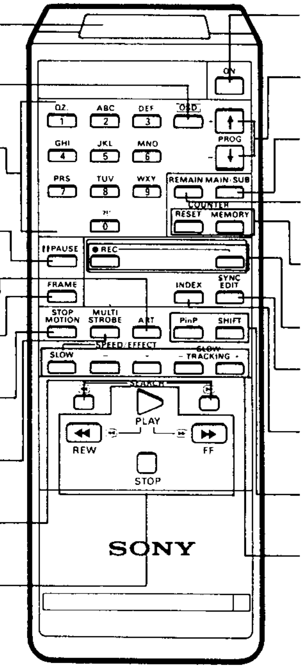
If the Remote Commander is not to be used for a long period of time, remove the batteries to avoid possible damage from battery leakage.

Operation of Remote Commander

To use the Remote Commander aim it at the remote sensor on the front panel of the VTR.


Approx. 30°
Approx. 30°
Maximum distance
approx. 7m (23 feet)

Controls and function


ON
OSD
.0Z.
1
ABC
2
DEF
3
PROG
GHI
4
JKL
5
MNO
6
PRS
7
TUV
8
WXY
9
REMAIN
MAIN·SUB
COUNTER
RESET
MEMORY
0
II PAUSE
● REC
FRAME
INDEX
SYNC EDIT
STOP MOTION
MULTI STROBE
ART
PinP
SHIFT
SPEED EFFECT
SLOW
SLOW
- TRACKING +
SEARCH
PLAY
REW
FF
STOP
SONY

Transmitter

OSD: Used for OSD function. See page 20.

10 keys: Press two keys to enter a programme number and operating the OSD function.

PAUSE: Same as PAUSE/STILL on the VTR.

ART: For digital art function. See page 20.

FRAME: Advance the picture from frame to frame during still playback. See page 17.

STOP MOTION: For digital memory function. See page 20.

MULTI STROBE: For multi strobe function. See page 20.

SEARCH ⏪ ⏩: Used only for picture search operation.

PLAY/STOP/REW/FF: Same as those on the VTR. Keep pressing FF or REW during playback for picture search.

ON: Same as ON/STANDBY on the VTR. (Turns operate on/off.)

PROGRAM: Same as that on the VTR. (Select next higher or lower programme.)

MAIN/SUB: Select the desired language while playing it back.

REMAIN: Switches from the counter display to the tape remaining display.

COUNTER RESET/MEMORY: Same as those on the VTR.

REC: Press both buttons to start recording.

SYNC. EDIT: Same as SYNCHRO EDIT on the VTR.

INDEX: Used for INDEX function. See page 22 for complete information.

P in P/SHIFT: For Picture-in-picture function. See page 18 for details.

SLOW/SLOW SPEED/SLOW TRACKING: Used for slow motion play. (See page 17 for details.)

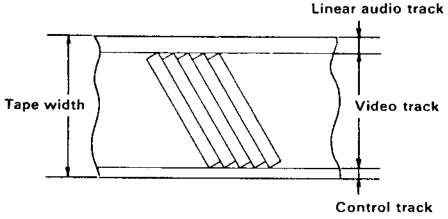
NOTE: The infrared rays will bounce off the walls and eventually reach the receiver on the VTR, but for best results transmit rays directly to the receiver.

Hi-Fi VHS

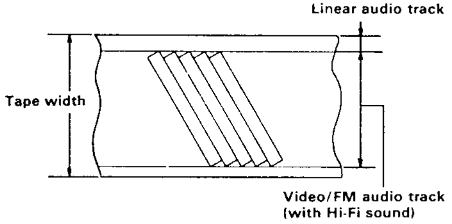
Hi-Fi VHS video recorders record sound using two systems simultaneously.

One system records the linear audio track as with conventional recorders and the other records an FM (frequency modulated) audio signal together with the video track.

1. **Differences between conventional and hi-fi VHS recorders**
   - **Conventional recorder**
     The audio signal is recorded on the linear audio track and the video signal is recorded on the video track.



   - **Hi-Fi recorder**
     Audio signals are recorded on the video track together with the video signal as well as on the linear audio track. The audio signals recorded on the video track are frequency modulated.



2. **Advantages of hi-fi VHS recorders**
   As the sound is recorded after frequency modulation, it has the following advantages.
   - Excellent frequency response
   - Less noise and distortion
   - Wide dynamic range

   In addition to these advantages since the two rotary heads are used to record and play back the audio signals, the relative speed of the tape and heads is 200 times the relative speed of the tape and head in the linear audio track in the VTR mode so that wow and flutter is below the measurable limit.

3. **Recording stereo broadcasts**
   - Separate left and right channel audio signals are recorded on the hi-fi audio track so that stereo broadcasts can be recorded in stereo.
   - Stereo broadcasts are also recorded as monaural on the linear audio track.

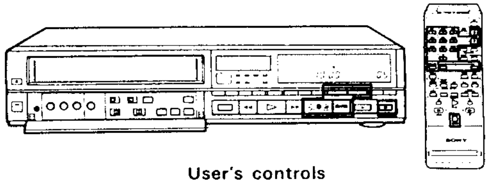
4. **Recording bilingual broadcasts**
   - Both main language and sub language are recorded on the hi-fi audio tracks separately.
   - Only main language is also recorded on the linear audio track.

5. **Audio dubbing**
   - The sound is recorded on the linear track. (The previously recorded sound will be erased.)
   - The sound on the hi-fi track remains without being erased.
   - The required sound on the dubbed tape can be heard during playback by changing over the AUDIO MONITOR selector.

6. **Compatibility of tapes recorded by this recorder and tapes recorded by recorders not equipped to record hi-fi sound**
   Because the audio signal is recorded on the linear audio track together with the hi-fi signal, tapes recorded by this recorder can be played back on conventional recorders and tapes recorded by other recorders without hi-fi can be played by this recorder.

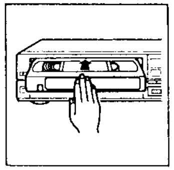
7. **Notes:**
   - When a tape without hi-fi audio is played back with the AUDIO MONITOR selector set to Hi-Fi, linear audio is automatically selected.
   - When the sound becomes unstable during hi-fi playback, the sound is muted temporarily. If the sound deteriorates even more, it switches over and plays back linear audio.
   - As rotary heads are used to pick up the hi-fi audio track, the heads and tape transport system are more likely to become dirty due to dust and magnetic particles from the tape when compared with an audio cassette recorder or reel-to-reel deck. When the heads get dirty, the hi-fi sound may not be heard or may be interrupted. If this happens, consult your Sony dealer.

RECORDING TV PROGRAMMES

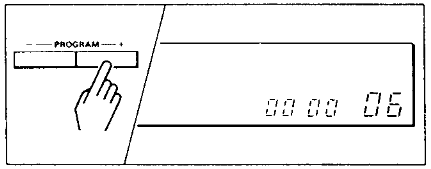


User's controls

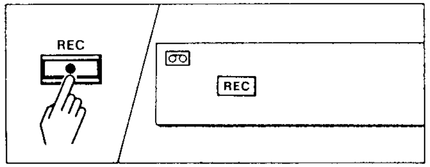
1 Insert a cassette.
Note: Be sure to check that the erase prevention tab is not missing. If it is removed, the VTR goes into playback mode automatically.



2 Select the programme to be recorded by pressing the PROGRAM select buttons or 10 keys.

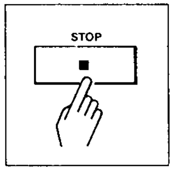


3 Press the REC button.



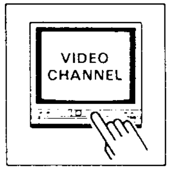
Now, recording starts.

4 After finishing recording press the STOP button.



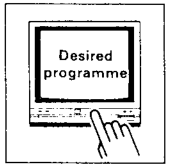
To view same programme while recording

You can view same programme while recording by merely selecting the video channel (described on page 9) on your TV.

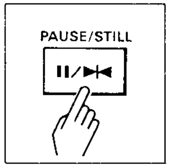


To record one programme while viewing another

You can record one programme while viewing another by merely selecting the programme on your TV. The recorded programme can be viewed later at your convenience.



Notes:

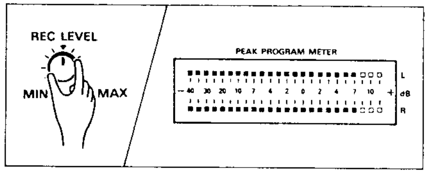


- If you wish to avoid recording unwanted material, press the PAUSE/STILL button. Press the PAUSE/STILL button again to release the pause mode. To prevent tape damage, do not leave the unit in the pause mode for more than 5 minutes.
- If you want to change programmes while in the record mode, press the PAUSE/STILL button then select the desired programme.
  Press the PAUSE/STILL button to release the pause mode.
- If the cassette in the VTR has its safety tab removed, the VTR will eject it when the REC button is pressed.
- Your TV does not have to be on to make a recording because the VTR records TV programmes without the aid of your TV. Its only use is for monitoring.

[For WG/AEP]

Recording level adjustment

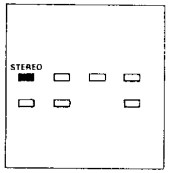
The TV sound is recorded at the optimum level with the REC LEVEL control set at the centre detent position. However, when recording sound from audio equipment, hi-fi sound may be more faithfully recorded and played back by adjusting the recording level with the REC LEVEL control.
Adjust the control so that the +7 dB segments light occasionally, when especially loud portions are being recorded.



Note: The recording level of the linear track is always set automatically.

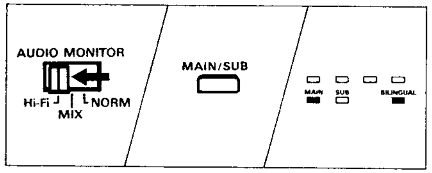
Recording stereo broadcast

The basic procedure for recording a stereo programme is the same as it is for normal off-the-air recording.
The STEREO lamp will come on if the station is broadcasting in stereo.



Recording bilingual broadcast

The basic procedure for recording a bilingual programme is the same as it is for normal off-the-air recording.
The BILINGUAL lamp will come on if the station is broadcasting in bilingual.
Note: You can monitor the desired language by pressing the MAIN/SUB select button on the Remote Commander. Set the AUDIO MONITOR selector to Hi-Fi then press the MAIN/SUB select button so that the desired lamp, MAIN or SUB, comes on.



Index signal

This VTR will automatically record the index signals on a tape at the beginnings of each programme every time the REC button is pressed.
Normally, an index "mark" is not recorded if PAUSE/STILL button is pressed and released during recording. You must press the REC button. If you are recording two programmes — one immediately following the other — you must press STOP and then REC to insert an index "mark"
If you are making an audio only tape (no video), the VTR will put index marks on the tape when you release the recording pause.
These indexed marks are useful for "Multi Auto Index" on page 21 and "Tape Indexing" on page 22.

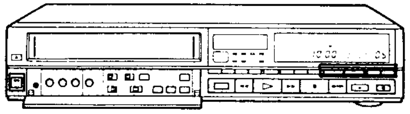
Notes:

- It is necessary for recordings to be two minutes or longer for the Multi Auto Index and Tape Indexing features to operate correctly. In audio-only recording, it is also necessary to record for four minutes or longer for these functions to operate correctly.
- When recording is performed from the beginning of the tape, the index mark will not be detected. To prevent this, play back the tape for approx. 5 seconds before recording.

INSTANT RECORDING TIMER (IRT)

[For WG/AEP]

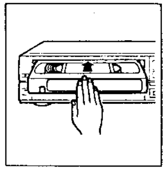
The Instant Recording Timer allows you to make simplified timer recording without using the programme timer. There are two simplified methods as explained below.



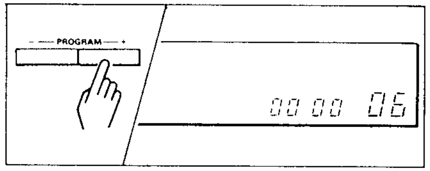
User's controls

FOR IMMEDIATE RECORDING

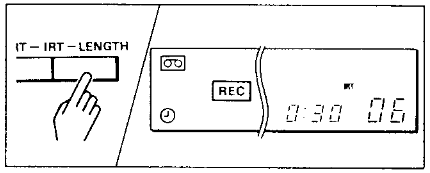
1 Insert the cassette (one with an intact erase prevention tab) into the cassette compartment.



2 Press the PROGRAM select button to select the programme to be recorded.



3 Press the LENGTH button to set the timer to "0:00". Then press LENGTH once again to indicate the recording time on the display.



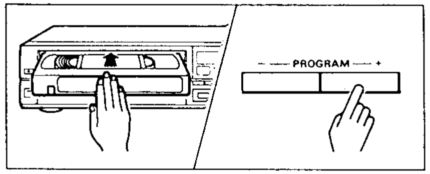
The time changes in hours and minutes in the order of 0:30, 1:00, 1:30, 2:00, 3:00 and 4:00 every time the button is pressed. Recording starts when 0:30 is displayed. During recording, the remaining time is displayed.

4 At the end of recording the display reads 0:00; the VTR will automatically stop recording.

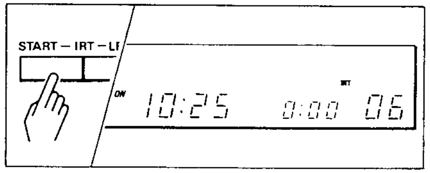
Note: The IRT feature does not operate during play and after a programme timer recording has started. During rewind mode, the IRT recording will automatically start after the tape is rewound fully to the end.

FOR SIMPLIFIED TIMER RECORDING

1 First perform Steps 1 and 2 of "FOR IMMEDIATE RECORDING".

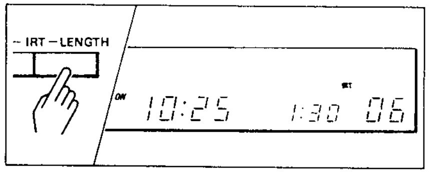


2 Press the START button to select the start time.



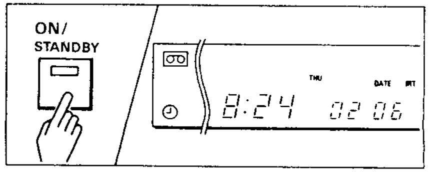
Holding the button down will increment the start time in 10-minute steps. Each time it is pressed will increment the start time by 1 minute.

3 Press the LENGTH button for the recording time.



The counter display is reset to hours and minutes in the order of 0:00, 0:30, 1:00, 1:30, 2:00, 3:00 and 4:00 every time the button is pressed.

4 Press the ON/STANDBY switch off.



The "⊙" indication will appear on the Display. The recording will start at the time you have selected and will automatically stop when the recording time display reads "0:00".

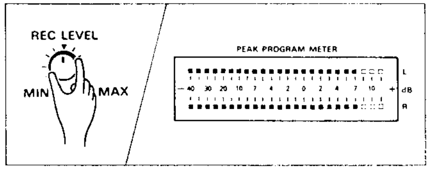
[For UK]

Recording level adjustment

The TV sound is recorded at the optimum level with the REC LEVEL control set at the centre detent position.

However, when recording sound from audio equipment, hi-fi sound may be more faithfully recorded and played back by adjusting the recording level with the REC LEVEL control.

Adjust the control so that the +7 dB segments light occasionally, when especially loud portions are being recorded.



Note: The recording level of the linear track is always set automatically.

Index signal

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Notes:

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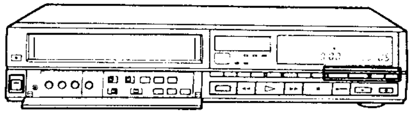
- When recording is performed from the beginning of the tape, the index mark will not be detected. To prevent this, play back the tape for approx. 5 seconds before recording.

INSTANT RECORDING TIMER (IRT)
[For UK]

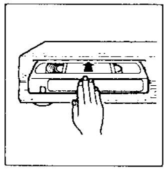
The Instant Recording Timer allows you to make simplified timer recording without using the programme timer. There are two simplified methods as explained below.



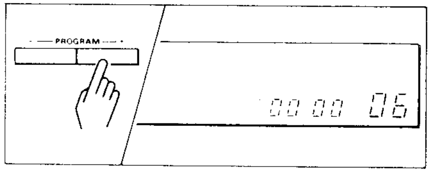
User's controls

FOR IMMEDIATE RECORDING

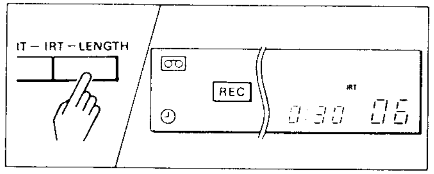
1 Insert the cassette (one with an intact erase prevention tab) into the cassette compartment.



2 Press the PROGRAM select button to select the programme to be recorded.



3 Press the LENGTH button to set the timer to "0:00". Then press LENGTH once again to indicate the recording time on the display.



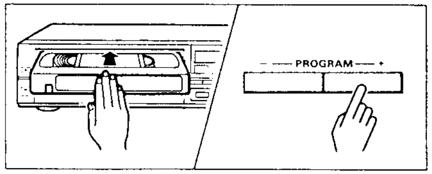
The time changes in hours and minutes in the order of 0:30, 1:00, 1:30, 2:00, 3:00 and 4:00 every time the button is pressed. Recording starts when 0:30 is displayed. During recording, the remaining time is displayed.

4 At the end of recording the display reads 0:00; the VTR will automatically stop recording.

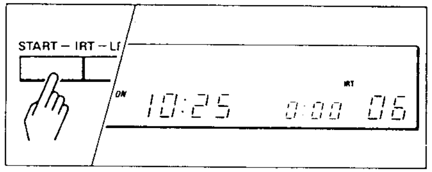
Note: The IRT feature does not operate during play and after a programme timer recording has started. During rewind mode, the IRT recording will automatically start after the tape is rewound fully to the end.

FOR SIMPLIFIED TIMER RECORDING

1 First perform Steps 1 and 2 of "FOR IMMEDIATE RECORDING".

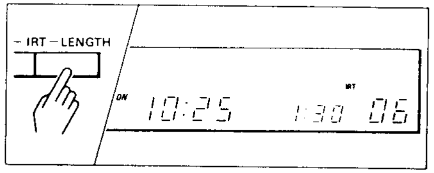


2 Press the START button to select the start time.



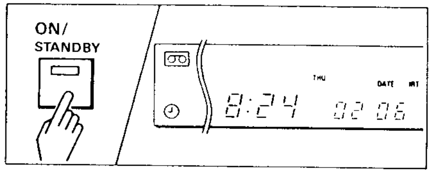
Holding the button down will increment the start time in 10-minute steps. Each time it is pressed will increment the start time by 1 minute.

3 Press the LENGTH button for the recording time.



The counter display is reset to hours and minutes in the order of 0:00, 0:30, 1:00, 1:30, 2:00, 3:00 and 4:00 every time the button is pressed.

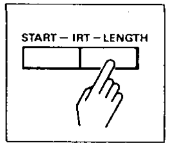
4 Press the ON/STANDBY switch off.



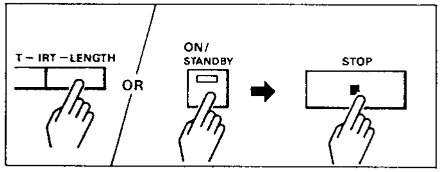
The "⊙" indication will appear on the Display. The recording will start at the time you have selected and will automatically stop when the recording time display reads "0:00".

Notes:

1. The recording time can be extended any time during IRT by pressing the LENGTH button. The recording time display will be reset to 0:30, 1:00, 1:30, 2:00, 3:00 or 4:00 as selected.



2. To stop the VTR during IRT, press the LENGTH button until the recording time display reads 0:00, or press the ON/STANDBY switch then the STOP button within ten seconds.



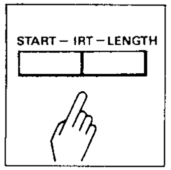
3. To change the IRT programme, the previous information must be first cleared.
4. If IRT and the programme timer recording overlap, the former will override the latter.

To recall the IRT programme

Press the START or LENGTH button to recall the start time and the recording time. In about 8 seconds the displays return to the present time of day.

Note: To recall the start time or the recording time, press the LENGTH button only once.

Pressing more will change the recording time and cause a need for resetting.

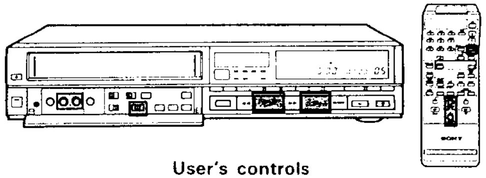


To cancel IRT programme

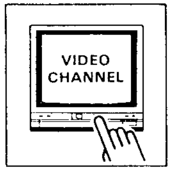
Press the LENGTH button as many as may be required to indicate "0:00" on the display. After approximately 8 seconds the display will return to the present time of day, and IRT has been now cleared.

Note: The ON/STANDBY switch may be on or off.

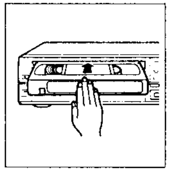
PLAYBACK


User's controls

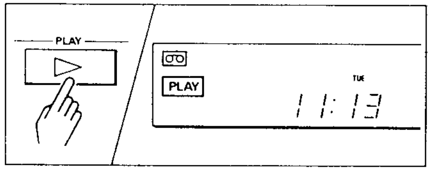
1 Turn the TV set on and select the video channel.



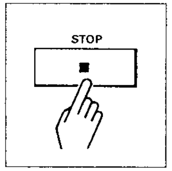
2 Insert the cassette.
Note: When the cassette (with erase prevention tab removed) is loaded, playback starts automatically.



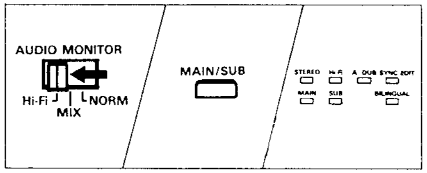
3 Press the PLAY button.



4 Press the STOP button to stop playback.



Selecting the playback sound



■ When playing stereo or monaural tapes

Set the AUDIO MONITOR selector to Hi-Fi and press the MAIN/SUB button on the Remote Commander so that both MAIN and SUB lamps light.

■ When playing back bilingual tapes

Set the AUDIO MONITOR selector to Hi-Fi and select the required language by pressing the MAIN/SUB button.

- When only the MAIN lamp lights, the main language is heard.
- When only the SUB lamp lights, the sub language is heard.
- When both MAIN and SUB lamps light, the main language on the left and sub language on the right are heard.

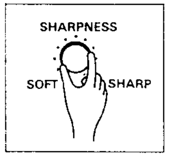
■ When playing back audio dubbed tapes

Set the AUDIO MONITOR selector to select the required sound.

- Set to Hi-Fi when listening to the original sound.
- Set to NORM when listening to the dubbed sound.
- Set to MIX when listening to the original sound and dubbed sound simultaneously.

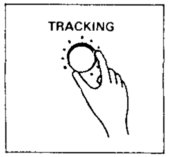
SHARPNESS control adjustment

Control the picture as you like (soft or sharp).

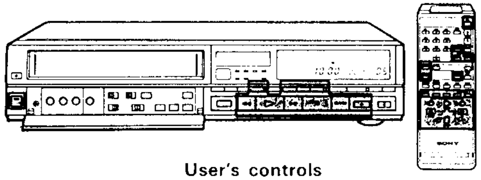


Tracking control adjustment

When playing prerecorded tapes or those recorded on units other than your own, black and white streaks may appear on your TV screen. If this occurs, adjust the TRACKING control until the streaks disappear. When playback of this particular tape is over, readjust the TRACKING control to its original position. The original position is normally in the center position.



SPECIAL CHARACTERISTICS

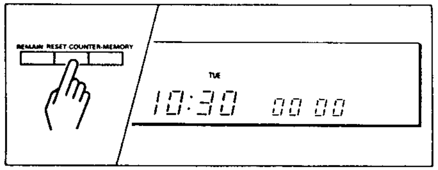


User's controls

Tape counter

This indicates the amount of video tape transported as a number.

Press the RESET button to set the counter reading to "0000" when starting recording or playing back.



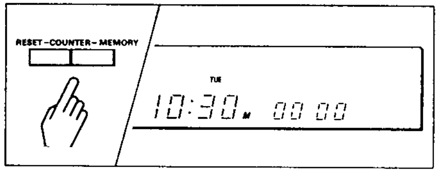
Note the number on the tape counter at the beginning and end of each programme you record. This will allow you to use the counter to find the desired programme later.

Note: If the "REMAIN" indicator is displayed, press the REMAIN button to change the display to the tape counter.

Counter memory function

This is useful if there is a section of tape you want to view immediately after recording or if you want to return to the same point several times.

1. Begin recording or playing back a tape.
2. At the point where you want playback to begin, reset the tape counter to "0000" by pressing the RESET button.
3. Press the MEMORY button, and the "M" appears in the display.



4. Continue to play or record.
5. Press the STOP button when recording or playback finishes.
6. Press the REW button.

The tape will automatically stop at the pre-selected "0000" position.

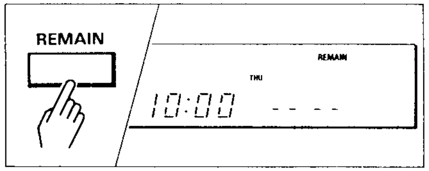
Actually, so that you won't miss the very first part of the programme to be viewed, the tape will stop slightly prior to "0000" at approximately the "9997" position.

Note: The counter memory function will also operate during the fast-forwarding mode.

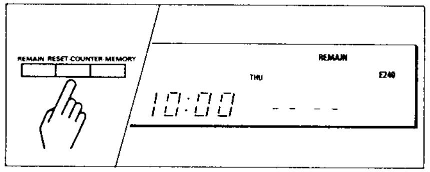
Tape remaining

This function allows the remaining tape to be displayed as a time during recording or playback.

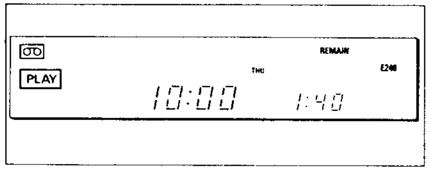
1. Press the REMAIN button.
   The "REMAIN" indicator lights in the display and the counter display is replaced with the tape remaining display.



2. Press the RESET button and display the E-240 indicator in the display only when the cassette E240 is used.
   Note: Set the RESET button correctly matching the tape used. When the setting position is wrong, the remaining time is not displayed correctly.



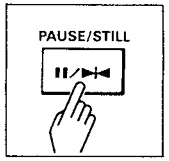
3. Start recording or playback. After approx. 15 seconds, the remaining time appears in the display.



Still playback

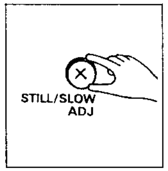
Press the PAUSE/STILL button to stop the picture on the screen during playback.

During still playback, press the PAUSE/STILL button to return to normal playback or the STOP button to stop the tape.



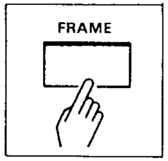
Notes:

- If you see vertical shaking on the TV screen in the still playback mode, rotate the STILL/SLOW ADJ control on the rear of the VTR to minimize shaking.
- When the still playback mode continues for about 5 minutes, the VTR switches to the stop mode automatically to prevent damage to the tape.
- The playback picture will have some noise in the still playback mode.



Frame-by-Frame picture

When you hold the FRAME button on the Remote Commander down during still playback mode, tape will be played back frame by frame. Operates only after PAUSE/STILL button has been pressed.

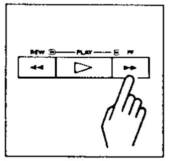


Picture search

This allows you to view the picture from a recorded tape at high speed in both the forward and reverse directions.

Press the PLAY button to play a tape, then press either the REW or FF on the VTR or SEARCH ◀◀ or ▶▶ on the Commander, or keep pressing FF or REW on the Commander during playback. (When you release the button, normal playback will resume.) Pictures can be viewed at high speed in either the forward or reverse direction.

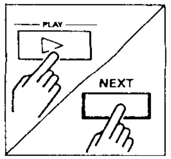
Note: The playback picture will have some noise in the picture search mode.



Auto endless play

Press the PLAY and NEXT buttons simultaneously; you can play the tape from the beginning to the end repeatedly. To stop endless play, press the EJECT or ON/STANDBY.

Note: If the counter memory function is turned on, the VTR stops rewinding at "0000" then starts playback.



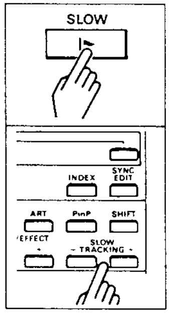
Slow function

Press SLOW button during playback, and the tape is played back at slow speed.

Then use the SLOW SPEED buttons on the Commander to vary the playback speed.

Notes:

- When noise appears in the slow playback pictures, it can be removed by pressing the SLOW TRACKING buttons on the Commander. Removing the noise in the slow playback also lets you enjoy a noisefree picture in still playback.
- When the slow playback mode continues for about 5 minutes, the VTR switches to the play mode automatically.



Automatic rewind

The VTR automatically rewinds the tape when the end of the tape is reached.

Rewind shut off

If the ON/STANDBY switch is pressed during rewind operation, power will be turned off automatically after the tape has been completely rewound.

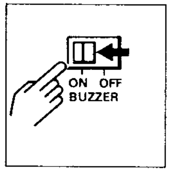
Note: If the counter memory or index function is turned on, the VTR will stop rewinding and switch off at the specified position.

Beep sound

This VTR has a BUZZER switch on the rear. When this switch is ON, a beep sound will be heard when any VTR operation button is pressed.

This is a convenience in operation.

To stop the beep sound, set the switch to OFF.



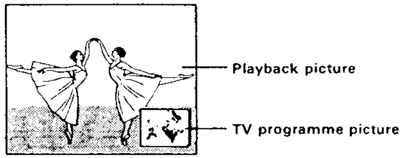
DIGITAL VIDEO EFFECTS AND ON-SCREEN-DISPLAY (OSD)
FUNCTIONS

Your new VTR offers the following special effects made possible by digital video technology and can be controlled from a distance using the Remote Commander.

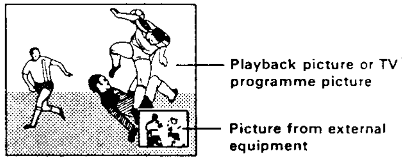
Digital picture-in-picture feature

This VTR is capable of displaying two pictures on the TV screen at the same time by using the PinP (Picture in Picture) function.
You can enjoy the PinP function in the following three ways.
(The pictures on the main and small screens can be interchanged in all cases.)

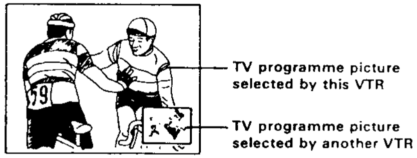
1. To view playback picture and off-the-air TV programme picture simultaneously.
   (See "CONNECTION DIAGRAM 1")


Playback picture
TV programme picture

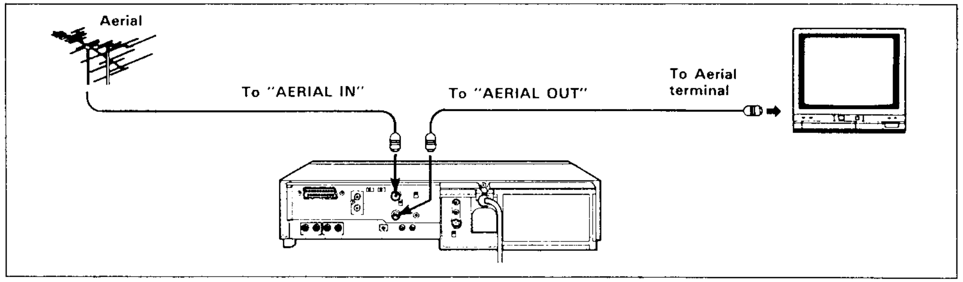
2. To view playback picture or off-the-air TV programme and the picture from external equipment simultaneously.
   (See "CONNECTION DIAGRAM 2")


Playback picture or TV programme picture
Picture from external equipment

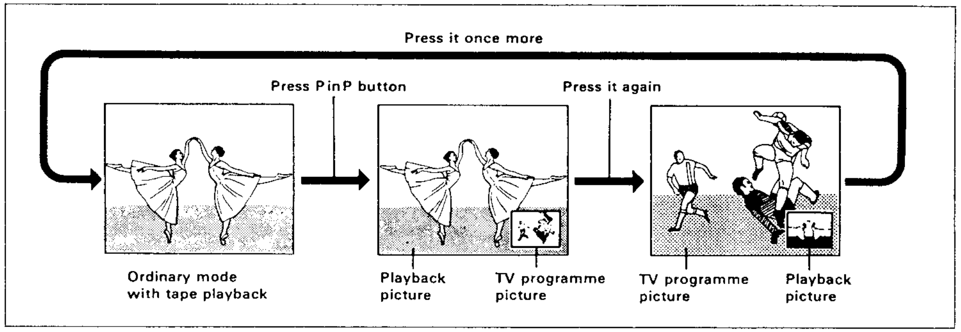
3. To view two off-the-air TV programmes on different channels simultaneously (TV in TV feature).
   (See "CONNECTION DIAGRAM 3")


TV programme picture selected by this VTR
TV programme picture selected by another VTR

CONNECTION DIAGRAM 1


Aerial
To "AERIAL IN"
To "AERIAL OUT"
To Aerial terminal

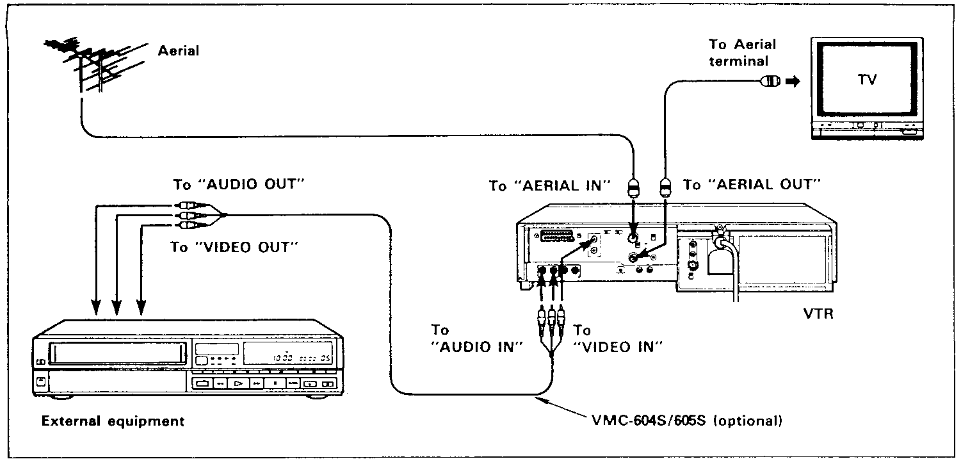
1. Press the PinP button while the VTR is playing back a tape. The tape programme will be displayed on the main screen and the off-the-air TV programme (through the VTR's built-in tuner) will be on the small screen.
   Note: If the button is pressed when the tape is not being played back, no programme will be displayed on the small screen.
2. Press the PinP button again. The VTR playback picture will appear on the small screen and the tuner picture will appear on the main screen.
3. Press it once more to return to the ordinary mode.


Press it once more
Press PinP button
Press it again
Ordinary mode with tape playback
Playback picture
TV programme picture
TV programme picture
Playback picture

Notes:

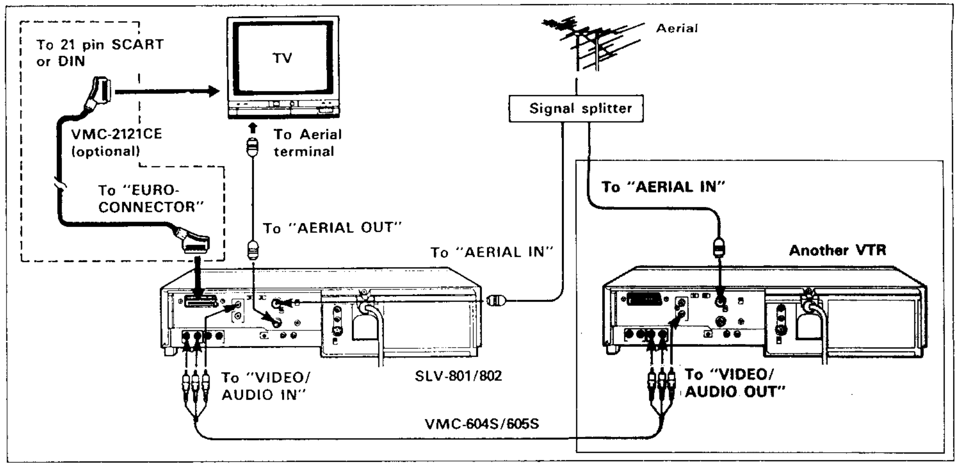
- Special effects (such as Still, Frame-by-Frame, Slow, Picture Search) will cancel the picture-in-picture when the tape is played back on the main screen and the TV picture on the small screen.
- Picture-in-picture is viewable with special effects (though with some noise), if it is displayed on the small screen. However, the picture on the small screen may fluctuate up and down.
- Changing the programme of the TV picture on the small screen is possible by pressing the PROGRAM select button. This enables you to check the programmes while you are playing a tape.
- When a B/W picture is on main screen, a B/W picture will also be on the small screen.
- When a DDR SECAM broadcast or the playback picture of the DDR SECAM recorded tape is displayed on the main screen, a B/W picture will appear on the small screen. (Colour noise will occur in the B/W picture.)
- When a DDR SECAM broadcast or the playback picture of the DDR SECAM recorded tape is displayed on the small screen, the picture will be black and white.
- If a poor picture is displayed on the main screen (when the tuner's reception is poor or when a poorly recorded tape is played back), a B/W picture may appear on the small screen or the picture may fluctuate up and down.
- When a picture with a horizontal line such as a test pattern, etc. is displayed on the small screen, the horizontal line may disappear.

CONNECTION DIAGRAM 2


Aerial
To Aerial terminal
TV
To "AUDIO OUT"
To "AERIAL IN"
To "AERIAL OUT"
To "VIDEO OUT"
VTR
To "AUDIO IN"
To "VIDEO IN"
External equipment
VMC-604S/605S (optional)

1. Press the PROGRAM select button so as to have "AU" indication light up in the display.
   Note: You can also select "AU" by pressing buttons [9] and [1] on the Remote Commander.
2. Press the PinP button while the VTR is playing back a tape. The tape programme will be displayed on the main screen and the picture from the external equipment will be on small screen.
   Note: If you want to view off-the-air TV programme and the picture from external equipment simultaneously, select the programme to be viewed and then press the PinP button. The TV programme (through the VTR's built in tuner) will be displayed on the main screen and the picture from the external equipment will be on small screen.
3. Press the PinP button again. The VTR playback picture will appear on the small screen and the picture from the external equipment will appear on the main screen.
4. Press it once more will return to the ordinary mode.

CONNECTION DIAGRAM 3


To 21 pin SCART or DIN
TV
Aerial
Signal splitter
VMC-2121CE (optional)
To Aerial terminal
To "AERIAL IN"
To "EURO-CONNECTOR"
To "AERIAL OUT"
To "AERIAL IN"
Another VTR
To "VIDEO/ AUDIO IN"
SLV-801/802
To "VIDEO/ AUDIO OUT"
VMC-604S/605S

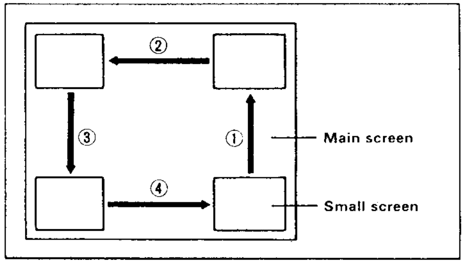
1. Press the PinP button. The off-the-air TV programme (from the VTR's built-in tuner) will be displayed on the main screen and the second TV programme (from another VTR's built-in tuner) will be displayed on the small screen. (TV in TV feature)
2. Press the PinP button again. The picture on main and small screens will be interchanged.
3. Press the PinP button once more to return to the ordinary mode.

NOTE: If your TV set has a "SCART" socket, connect your VTR and TV set as shown in dotted lines above. You may enjoy the TV in TV feature without connecting the shaded portion (another VTR). However, there are some TV sets with "SCART" sockets which do not provide the TV in TV feature unless another VTR is connected.
Check the following:
After connecting your VTR and TV set as shown in DIAGRAM 3 without another VTR, operate as follows.

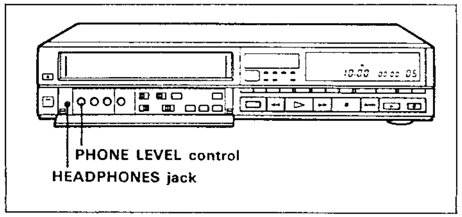
1. Turn on the power of the VTR and TV set.
2. Press the PinP button.

When the picture selected by the VTR tuner is displayed on the main screen and the picture selected by the TV tuner on the small screen correctly, you can enjoy the TV in TV feature without connecting another VTR.

- Press the SHIFT button on the Remote Commander to move the small screen from corner to corner.


②
③
①
④
Main screen
Small screen

- Plug headphones into the HEADPHONES jack to listen to the sound corresponding to the picture on the small screen. Adjust the sound volume using the PHONE LEVEL control.


PHONE LEVEL control
HEADPHONES jack

Digital memory feature

This feature allows you to stop and freeze whatever picture is displayed on the TV screen. This can be especially useful if you want to freeze a TV picture (for example, when an address or phone number is shown, so that you can write it down.)

1. Press the STOP MOTION button while viewing a TV programme or playing back a tape to stop a picture. The picture will freeze, but the sound will continue.
2. Press the STOP MOTION button again to return the TV screen to the normal TV viewing or the normal playback.

Notes

- If you press the STOP MOTION button while playing back a tape, the picture will freeze, but the tape will continue running. This is different from the still playback in which the picture stops when the PAUSE button is pressed.
- Occasionally the freeze picture may tend to jump up and down slightly. Adjust the TV STILL ADJ control on the rear of the VTR to reduce this jitter.
- Once you have frozen a picture and then returned to live action, you can recall the frozen picture. See "Memory recall" on page 21.
- The picture stored in memory will be cleared when the P-in-P and Art functions are operated.
- When the Strobe, Multi Strobe, Multi Channel Search, Multi Auto Indexing or Title function is accessed, the picture stored in memory will be rewritten by the new picture.

Digital strobe feature

You can use the strobe effect while viewing a TV programme or playing back a tape.

1. Press the STOP MOTION button while viewing a TV programme or playing back a tape. The stop action picture appears and sound is heard normally.
2. Press the SLOW SPEED/EFFECT button (+) to start the strobe effect.
   You can increase and decrease the speed with the SLOW SPEED/EFFECT buttons (+ and −).
3. Press the STOP MOTION button again to stop the strobe effect.
4. Press the STOP MOTION button once again to return the display to normal while the freeze picture is displayed.

Digital multi-strobe feature

This feature divides the screen into 4, 9 or 16 small screens which display and freeze the picture while viewing a TV programme or playing back a tape. To do this, select the number of the small screens by following the "Multi-picture 4/9/16" on page 22.

1. Press the MULTI STROBE button while viewing a TV programme or playing back a tape.
   The stop action picture appears sequentially on the small screens and then returns to the first small screen continuing with sequential stop action. Sound is heard normally.
2. Press the SLOW SPEED/EFFECT button (− or +) to change the sequential speed. If the SLOW SPEED/EFFECT button (−) is held down, the last picture in the sequence will contain movement.
   Press the FRAME button to manually update the next picture in the sequence.
3. Press the MULTI STROBE button again to return the TV screen to normal TV viewing or normal playback.

Note: If the STOP MOTION button is pressed while the multi-strobe picture is displayed, the picture shown at the moment the button is pressed can be stored in memory. The stored picture can be recalled by following "Memory recall" on page 21.
Pressing the STOP MOTION button again returns the screen to the multi-strobe function.

Digital art feature

This feature allows you to change the picture on the screen to a mosaic or solarization effect.

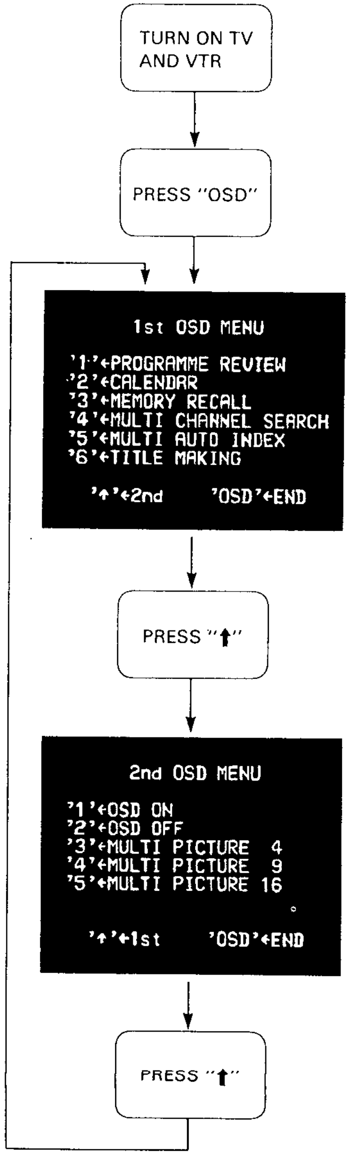
1. Press the ART button once while viewing a TV programme or playing back a tape, and the picture will change to a mosaic effect.
2. Press the ART button again and the picture will change from the mosaic to solarization effect.
3. Press the button once again, and the picture will change to a mixture of the mosaic and solarization effects.
4. Press the button once more, and the picture will change to normal.

Note: The mosaic effect and the solarization effect can be varied in 3 steps by pressing the SLOW SPEED/EFFECT buttons (+ and −).

OSD OPERATION

The OSD function allows you to display the many functions of this VTR on the TV screen so that you can operate them easily and select the required function using the Remote Commander.
You can also demonstrate the major functions of this VTR on the TV screen for your quick understanding. (See page 22.)

Basic flow of OSD



1 **TURN ON THE TV AND VTR.**

- The TV must be in the VTR input mode.

2 **PRESS THE OSD BUTTON.**

3 **1ST OSD MENU APPEARS ON THE TV SCREEN.**

- The menu items 5 and 6 are not displayed when a cassette is not inserted.
- The menu items 4 through 6 are not displayed when the VTR is in the recording or playing mode.

4 **PRESS THE "↑" (PROGRAM +) BUTTON.**

5 **2ND OSD MENU APPEARS ON THE TV SCREEN.**

6 **PRESS THE "↑" (PROGRAM +) BUTTON.**

- The TV screen will return to the 1st OSD menu.

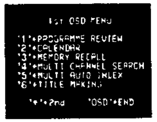
> Press the OSD button to return to the normal TV screen. The menu display will automatically disappear if nothing is done for about 1 minute.

OPERATION

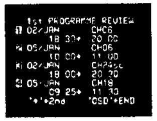
Programme review

This function is very convenient when you want to check the contents of programmes stored in the VTR.

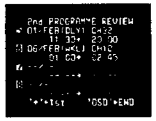
1. Select the 1st OSD menu.
2. Press button $\boxed{1}$.


1st OSD MENU
'1'→PROGRAMME REVIEW
'2'→CALENDAR
'3'→MEMORY RECALL
'4'→MULTI CHANNEL SEARCH
'5'→MULTI AUTO INDEX
'6'→TITLE MAKING
'↑'→2nd 'OSD'→END

3. The contents of programme numbers 1 through 4 will appear.
   Note: "CH70" indicates that the auxiliary input has been programmed.


1st PROGRAMME REVIEW
1 02/JAN CH06
18 30→ 20 00
2 05/JAN CH06
10 00→ 11 00
3 02/JAN CH24
18 00→ 20 30
4 05/JAN CH18
09 25→ 11 30
'↑'→2nd 'OSD'→END

4. Press the "↑" (PROGRAM +) button to display the contents of programme numbers 5 through 8.
5. The contents of programme numbers 5 through 8 will appear.

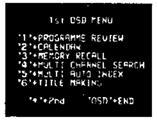

2nd PROGRAMME REVIEW
5 01/FEB(DLY) CH32
18 30→ 20 00
6 06/FEB(WKL) CH10
01 00→ 02 45
7 --/--
8 --/--
'↑'→1st 'OSD'→END

6. Press the "↑" (PROGRAM +) button if you want to return the screen to the contents of programme numbers 1 through 4.

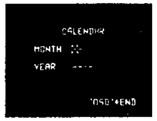
Calendar

This function accesses the built-in calendar which can display every month from January, 0001 to December, 9999.

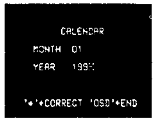
1. Select the 1st OSD menu.
2. Press button $\boxed{2}$.


1st OSD MENU
'1'→PROGRAMME REVIEW
'2'→CALENDAR
'3'→MEMORY RECALL
'4'→MULTI CHANNEL SEARCH
'5'→MULTI AUTO INDEX
'6'→TITLE MAKING
'↑'→2nd 'OSD'→END

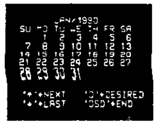
3. The programmable calendar menu will appear.


CALENDAR
MONTH --
YEAR ----
'OSD'→END

4. Set the month and year by inputting 6 digits.
   For example, press
   $\boxed{0}$ $\boxed{1}$ $\boxed{1}$ $\boxed{9}$ $\boxed{9}$ $\boxed{0}$ for January, 1990.
   If the incorrect digit is input, press the "↓" (PROGRAM −) button to position the flashing cursor over the digit to be corrected, then input the correct digit.
   Always press $\boxed{0}$ before a single digit month.


CALENDAR
MONTH 01
YEAR 1990
'↓'→CORRECT 'OSD'→END

5. The calendar for the month you have input will appear.

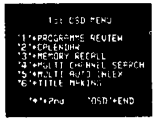

JAN/1990
SU MO TU WE TH FR SA
1 2 3 4 5 6
7 8 9 10 11 12 13
14 15 16 17 18 19 20
21 22 23 24 25 26 27
28 29 30 31
'↑'→NEXT '0'→DESIRED
'↓'→LAST 'OSD'→END

6. Press the "↑" (PROGRAM +) button to display the calendar of next month or press the "↓" (PROGRAM −) button to display the calendar of the previous month.
7. Press button $\boxed{0}$ to return the display to the programmable calendar menu shown in step 3.
   Then repeat step 4 above.

Memory recall

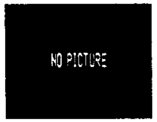
This function allows you to recall the picture stored in memory (by operating "Digital memory feature" on page 26).

1. Select the 1st OSD menu.
2. Press button $\boxed{3}$.


1st OSD MENU
'1'→PROGRAMME REVIEW
'2'→CALENDAR
'3'→MEMORY RECALL
'4'→MULTI CHANNEL SEARCH
'5'→MULTI AUTO INDEX
'6'→TITLE MAKING
'↑'→2nd 'OSD'→END

3. The picture which has previously been stored in memory (by pressing the STOP MOTION button) will appear.

   If there is no picture in memory, the TV screen shows "NO PICTURE" for a few seconds.



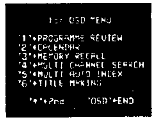
The picture stored in memory can be recorded on tape by following "Multi-auto index" on page 21.

Multi-channel search

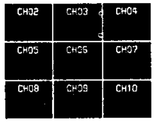
This function displays a still picture of each programme on the screen divided into 4, 9 or 16 multi screens.

To do this, first select the number of small screens using "Multi picture 4/9/16" on page 30, depending on the number of the programmes you can receive them in your area, then set the VTR to the stop mode.

1. Select the 1st OSD menu.


1st OSD MENU
'1'→PROGRAMME REVIEW
'2'→CALENDAR
'3'→MEMORY RECALL
'4'→MULTI CHANNEL SEARCH
'5'→MULTI AUTO INDEX
'6'→TITLE MAKING
'↑'→2nd 'OSD'→END

2. Press button $\boxed{4}$.
   A still picture of each programme in your VTR's scan list will be displayed together with the programme number.


CH02
CH03
CH04
CH05
CH06
CH07
CH08
CH09
CH10

   If the last programme is reached before the screen is filled, the programme with the lowest number will be displayed again.
3. Press 2 digits of 10-key pad to select the desired programme.
   The multi-screen will be released and replaced with the programme you have selected.

Multi auto index

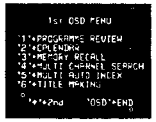
Every time you start recording with the REC button, an index mark will be automatically recorded on the tape. (See page 16 for details.)

This feature detects these marks during search and displays the pictures with stop action on the multi screens for up to maximum of 16 programmes. You can also record this multi picture on a tape to display the contents of the tape.

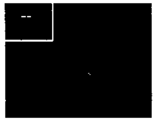
Preparation

- Turn on the VTR and TV.
- Insert a cassette recorded with this VTR.
- Select the number of pictures on the screen with "Multi picture 4/9/16" on page 22, depending on the number of recordings you except on the tape.

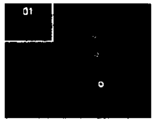
1. Select the 1st OSD menu.
2. Press button $\boxed{5}$.
   The INDEX indicator will appear in the display of the VTR.


1st OSD MENU
'1'→PROGRAMME REVIEW
'2'→CALENDAR
'3'→MEMORY RECALL
'4'→MULTI CHANNEL SEARCH
'5'→MULTI AUTO INDEX
'6'→TITLE MAKING
'↑'→2nd 'OSD'→END

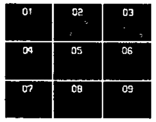
3. One small screen will appear at the top left and the VTR will be rewound to the beginning of tape then start searching.



4. At the first index mark, the still picture will appear on the small screen with the index number "01". Then searching will be repeated.



   Note: When a new recording is made on the previously recorded tape, the previous INDEX signals may remain without being erased. In this case, the index number may not be "01".
5. The VTR repeats the above steps until the screen is filled by the pictures or the tape reaches the end. The INDEX indicator will disappear from the display of the VTR and then the VTR will rewind the tape to the beginning or to the counter reading "0000" if the counter memory is on. The multi pictures will remain on the TV screen.


01
02
03
04
05
06
07
08
09

To record the multi indexed picture

Operate the following after performing steps 1 — 5 above.

1. Press the PLAY button then REW or FF button to find the position where you want to stop recording the multi indexed pictures.
2. At the position where you want to stop recording, press the RESET and MEMORY buttons to reset the tape counter to "0000" and to display the counter memory mark "M".
3. Press REW button to rewind the tape to the position to start recording. Press the PLAY then PAUSE button. The VTR will enter the play/pause mode.
4. Press the REC button.
   The VTR will enter the record/pause mode. The multi pictures will appear on the TV screen.
5. Press the PAUSE button. The recording will start.
6. The VTR will automatically stop recording at the tape counter reading "0000". The TV screen will change from the multi indexed picture to the normal display.

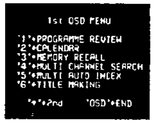
Notes:

1. The picture that was stored in memory following "Digital memory feature" on page 20 and the title that was made following "Title making" on this page can also be recorded.
   1. Perform steps 1 — 3 above.
   2. Recall the store picture. Operate "Memory recall" on page 21.
   3. Perform steps 4 — 6 above.
2. Multi pictures cannot be recorded on the non-recorded portion of a tape, eg. on completely new tape.

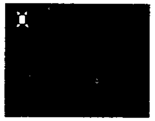
Title making

You can create and record titles on a pre-recorded tape.

1. Select the 1st OSD menu.
2. Press button $\boxed{6}$.


1st OSD MENU
'1'→PROGRAMME REVIEW
'2'→CALENDAR
'3'→MEMORY RECALL
'4'→MULTI CHANNEL SEARCH
'5'→MULTI AUTO INDEX
'6'→TITLE MAKING
'↑'→2nd 'OSD'→END

3. The programmable title display will appear on the TV screen along with a flashing block.



4. Select the first character position by pressing the "↑" (PROGRAM +) or "↓" (−) button.
5. Press one of numbered buttons $\boxed{0}$ through $\boxed{9}$.
   The letters shown in the table on the next page are selected using numbered buttons.
6. When the desired character is input, shift the flashing block to the position to be programmed next. Then repeat steps 5 and 6 until the desired title is completed.
7. After completing the desired title, press the STOP MOTION button to store the title in memory.
8. To record this title on the tape, see note 1 in "Multi auto index" on this page.

Notes:

- To correct errors during programming press the "↑" (PROGRAM +) or "↓" (−) button to position the flashing block over the character to be corrected.
  If the button is kept depressed, the flashing block will shift rapidly. Then input the correct digit.
- These titles cannot be recorded on a non-recorded portion of tape.
- The pre-recorded image will still be seen slightly in the title.

Character assignment

Following letters are selected by pressing buttons [0] through [9].

[0]	0 ? ! '	[5]	5 J K L
[1]	1 Q Z .	[6]	6 M N O
[2]	2 A B C	[7]	7 P R S
[3]	3 D E F	[8]	8 T U V
[4]	4 G H I	[9]	9 W X Y

Character size and capacity

You have a choice of three character sizes; medium, large and extra large when making titles.

Press the SLOW TRACKING button (+) repeatedly until the desired size appears on the TV screen.

The programmable capacity using each size is as follows;

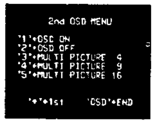
MEDIUM: 240 characters along 10 lines with 24 characters per line.

LARGE: 144 characters along 6 lines with 24 characters per line.

EXTRA LARGE: 96 characters along 4 lines with 24 characters per line.

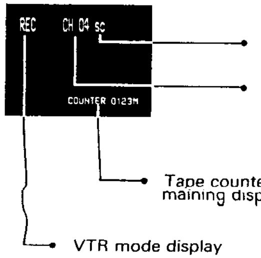
OSD on and OSD off

Whenever you turn on the VTR or change its status – Stop to Play, Play to Stop, change programmes, etc. – the new status of the VTR is displayed on the TV screen automatically for a few seconds. You can remove all displays from the screen when they are not needed.


2nd OSD MENU
'1'+OSD ON
'2'+OSD OFF
'3'+MULTI PICTURE 4
'4'+MULTI PICTURE 9
'5'+MULTI PICTURE 16
'+'+1st
'OSD'+END

1. Select the 2nd OSD menu.
2. Press button [1] to turn on OSD or the button [2] to turn off OSD.
   If button [1] is pressed, the VTR status will appear on the TV screen for a few seconds.
   If button [2] is pressed, "OSD OFF" will appear on the TV screen for a few seconds.
   Note: This VTR has been preset at the factory to "OSD ON".

Contents of display


REC
CH 04 SC
COUNTER 0123M

Simulcast display

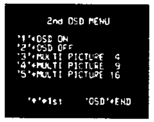
Programme display (including "AUX" for auxiliary input)

Tape counter display or Tape remaining display

VTR mode display
"REC" for record, "PLAY ▶" for play, "▶▶" for fast forward, "◀◀" for rewind, "REC ❚❚" for record/pause and "STOP" for stop.

Multi picture 4/9/16 (Selecting number of multi pictures)

You can divide your TV screen into 4, 9, or 16 small screens which can be used for Digital Multi Strobe, Multi Channel Search or Multi Auto Index.


2nd OSD MENU
'1'+OSD ON
'2'+OSD OFF
'3'+MULTI PICTURE 4
'4'+MULTI PICTURE 9
'5'+MULTI PICTURE 16
'+'+1st
'OSD'+END

1. Select the 2nd Menu.
2. Press button [3] for 4 screens, button [4] for 9 screens or button [5] for 16 screens.

Notes:

- This VTR has been shipped from the factory with "9 screens".
- The pictures displayed in the 4 or 16 screens have slightly different tint and resolution from the original pictures.

Tape indexing

Tape indexing allows you to search the required programmes easily using INDEX signals that are recorded automatically each time a recording is started.

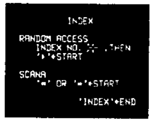
These are two methods of indexing.

One is a Random Access Indexing.

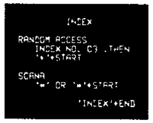
This is the direct recall of the desired programme by inputting the index number which is easily found from the multi indexed picture made by "Multi auto index" as described on page 21 or a programme number which can be listed on a label stuck on your video cassette.

The other is Scana Indexing in which the first few seconds of all recordings can be viewed during searching. This also allows you to jot down all recording on the tape easily.

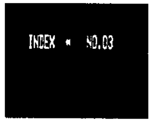
Random Access Indexing


INDEX
RANDOM ACCESS
INDEX NO. --.THEN
'▶'+START
SCANA
'◀◀' OR '▶▶'+START
'INDEX'+END

1. Press the INDEX button during the stop mode.
   The index menu will appear.


INDEX
RANDOM ACCESS
INDEX NO. 03 .THEN
'▶'+START
SCANA
'◀◀' OR '▶▶'+START
'INDEX'+END

2. Press two buttons of the 10-key pad to select the desired programme number.
   Note: Up to a maximum number of 99 programmes can be selected.

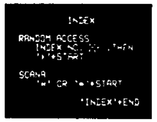


3. Press the PLAY button.
   You may press the REW or FF button.
4. The VTR will automatically search for the programme you selected.
   During search, the selected index number and the direction of searching is displayed on the TV screen.
5. When the programme you selected is located, the VTR will automatically begin play and the INDEX indicator on the VTR will be turned off.

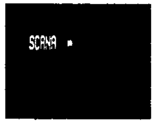
Notes:

- If this is the first time you have used Tape Indexing since the cassette was inserted, the VTR rewinds the tape to the beginning to start counting index marks.
  If this is not the first time Tape Indexing is used, the VTR can count the index marks without returning to the beginning.
- To use Tape Indexing, the tape must have been recorded by a VTR with the INDEX feature.

Scana Indexing


INDEX
RANDOM ACCESS
INDEX NO. --.THEN
'▶'+START
SCANA
'◀◀' OR '▶▶'+START
'INDEX'+END

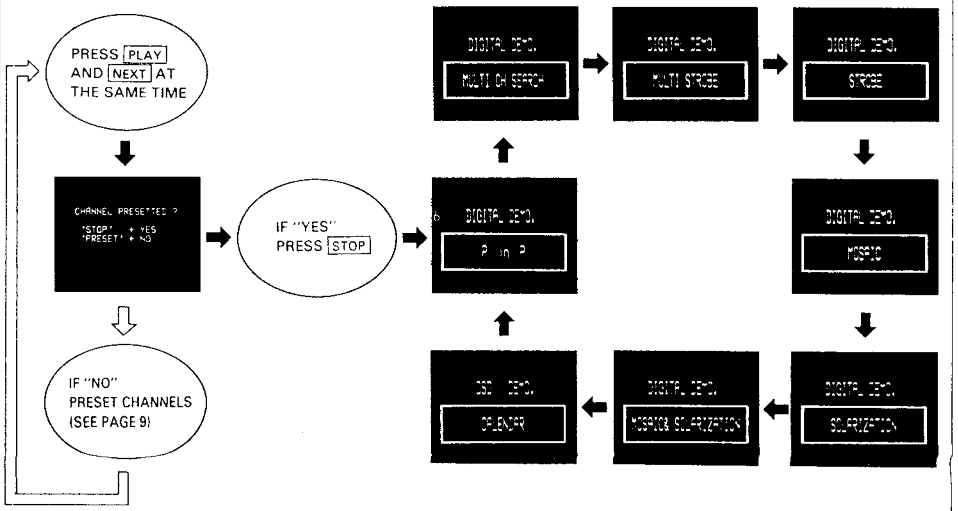
1. Press the INDEX button during the stop mode.
   The index menu will appear.



2. Press the REW or FF button.
   The tape will be rewound or fast forwarded until an index mark is detected.
3. When the VTR has located an index mark, it will enter the forward search mode for approximately 10 seconds of the programme following the mark. This is long enough for you to recognize the programme. Then the VTR winds tape to the next index mark in sequence.
   Note: With an audio-only tape, every time an INDEX signal is reached, the tape will be played for 10 seconds.
4. When you see the programme you want to watch, press the PLAY button.
   The INDEX indicator on the VTR will be turned off.

Digital and OSD effects demonstration

You can demonstrate the digital and OSD effects used in this VTR following the procedure below. Remove the cassette before the demonstration.

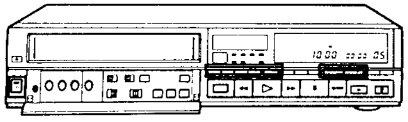

PRESS PLAY AND NEXT AT THE SAME TIME
CHANNEL PRESETTED ?
'STOP' + YES
'PRESET' + NO
IF "YES" PRESS STOP
IF "NO" PRESET CHANNELS (SEE PAGE 9)
DIGITAL DEMO.
P in P
DIGITAL DEMO.
MULTI CH SEARCH
DIGITAL DEMO.
MULTI STROBE
DIGITAL DEMO.
STROBE
DIGITAL DEMO.
MOSAIC
DIGITAL DEMO.
SOLARIZATION
DIGITAL DEMO.
MOSAIC& SOLARIZATION
OSD DEMO.
CALENDAR

NOTES

- Press [ON/STANDBY] to release the demonstration.
- After about 5 minutes, the demonstration is automatically released.

TIMER RECORDING

The programmable electronic clock/timer permits the *unattended recording of 8 preselected programmes* within a period of 1 year, including the same programme(s) repeated on every day and the same programme(s) every week. It turns the unit on and off and selects the channel automatically.

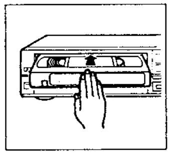


User's controls

Preparations for timer recording

- **Your TV does not have to be on to make a recording because the VTR records TV programmes without the aid of your TV.** Its only use is for monitoring.

1. Make sure that the clock shows the present time and day correctly.
2. Insert a cassette. Be sure to check that the record safety tab is not missing. If the record safety tab is missing, recording will not begin.

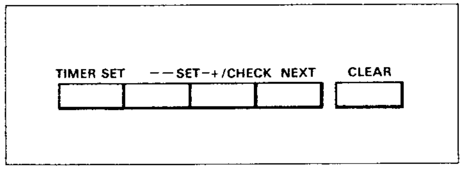


3. Programme the timer.

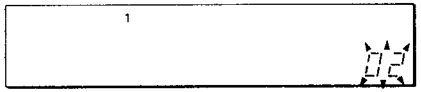
Programming the timer for unatteended recording

For unattended recording the timer needs to know what **day** to make the recording, the **time to start**, the **time to stop**, and the **programme to be recorded.**

If you input erroneous information by mistake when programming the timer, press the CLEAR button and input the correct information again.



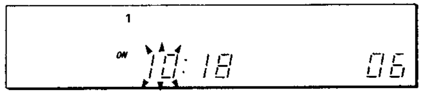
1. Press the TIMER SET button.



An unused timer programme number is automatically selected from numbers 1 to 8 in numerical order and the TV programme number will start flashing.

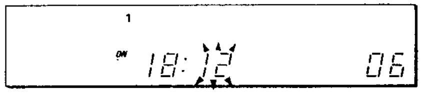
NOTE: Check the timer programme numbers in the display before pressing the TIMER SET button. The timer allows up to 8 programmes to be stored, but when all programme numbers 1 to 8 are lit in the display, no programming can be performed. To input a programme at this time, clear one of the 8 programme numbers (see "To clear a programme"). When the TIMER SET button is pressed while all the 8 programme numbers are lit, the "FUL" indicator will light to warn you. (When the BUZZER switch is ON in this state, a beep sound will be heard to warn you.)

2. Choose the TV programme to be recorded by pressing the SET or PROGRAM select button. Then press the NEXT button. Hour starts flashing.



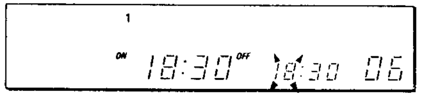
For example, above diagram shows that TV programme 6 has been set.

3. Select the hour for recording to start by pressing the SET button (Forward or Reverse). Hold down the button to advance rapidly. Press the NEXT button after selecting the hour for recording to start. Minutes starts flashing.



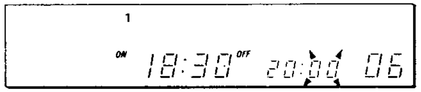
For example, the above diagram shows that "18" hours has been set.

4. Select the minutes for recording to start by pressing the SET button (Forward or Reverse). Hold down button to advance rapidly. Press the NEXT button after selecting the minute for recording to start. "OFF" will appear and hour starts flashing.

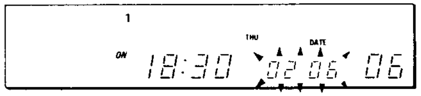


For example, the above diagram shows that "30" minutes has been set.

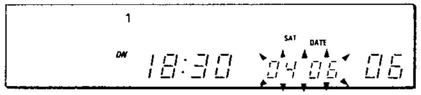
5. Select the hour and minute to stop recording by the same procedures described in steps 3 and 4.



For example, the above diagram shows that "20:00" has been set.
Be sure to press the NEXT button after selecting the minute. The current date appears and starts flashing.



6. Press the Forward SET (+) button to select the day and month of recording.

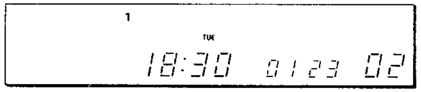


For example, above diagram shows recording on the 4th of June.

Notes:

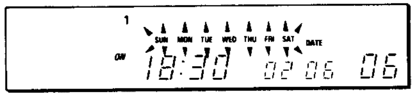
- Day of week appears automatically.
- If you want to start recording on the current day, simply press the NEXT button.
- The above diagram shows how to record a programme on a single day. To record a programme at the same time on every day or to record it on one certain day of each week, follow the procedure described below.

After setting the day and month press the NEXT button. The programme indicator flashes and the display shows both start and stop times in a few seconds. Then display shows start time and date. Finally the display returns to normal together with lighting programme number.



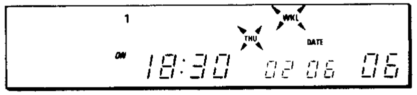
NOTES:
To record a programme at the same time every day of week or to record a programme on a specified day at the same time each week, perform the following step instead of step 6 above.

To record same time every day of the week
Press the Reverse SET (–) button once. All day indicators light.
If you press the button twice or more, press the button until all day indicators light. Hold down the button to advance rapidly.



Then press the NEXT button.

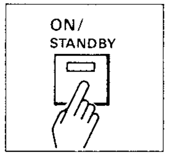
To record on a specified day at the same time each week
Press the Reverse SET (–) button until the desired day indicator lights along with letters "WKL". Hold down the button to advance rapidly.



Then press the NEXT button.

Now, one programme has been completed.

7. Turn off the ON/STANDBY switch. The "◷" indicator will come on.

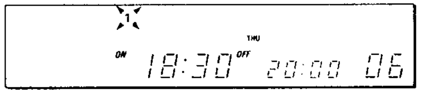


Notes:

1. If the erase prevention tab is removed, the cassette is ejected automatically and "◷" indication will flash. Stick a piece of cellophane tape over the erase prevention hole on the cassette to enable recording.
2. The "◷" indication will flash, if a cassette is not inserted.

To clear a programme

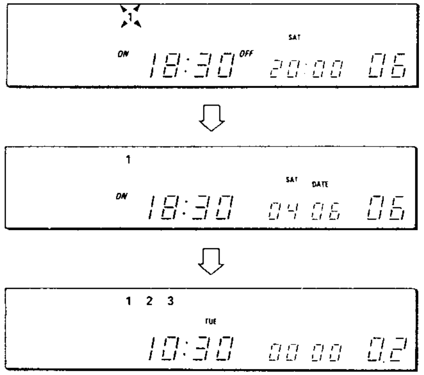
1 Press the Forward SET button (+) until a timer programme number (and start/stop times) to be cleared appears.



2 Press the CLEAR button.
The display returns the clock time display and the cleared programme number disappears.
Be sure to press the CLEAR button while the display shows the start/stop times or start time/start date. The programming does not clear if the CLEAR button is pressed when the display returns the clock time display.

To check programming

Press the Forward SET button (+/CHECK).
The programme indicator "1" flashes. If the programme No. 1 has been already programmed, both start and stop times are displayed. After a few seconds the display shows start time and start date. The display then automatically returns to the present time of day. When the clock display reappears, press the Forward SET button (+/CHECK) again to check the next programme. If that programme number has not been used, only programme number will appear.



Programming errors

If programmes overlap, the VTR will select the programme with the earliest start time. When that programme is over, the VTR will switch to the next programme. If the start times are the same, the VTR will select the programmes in numerical order.

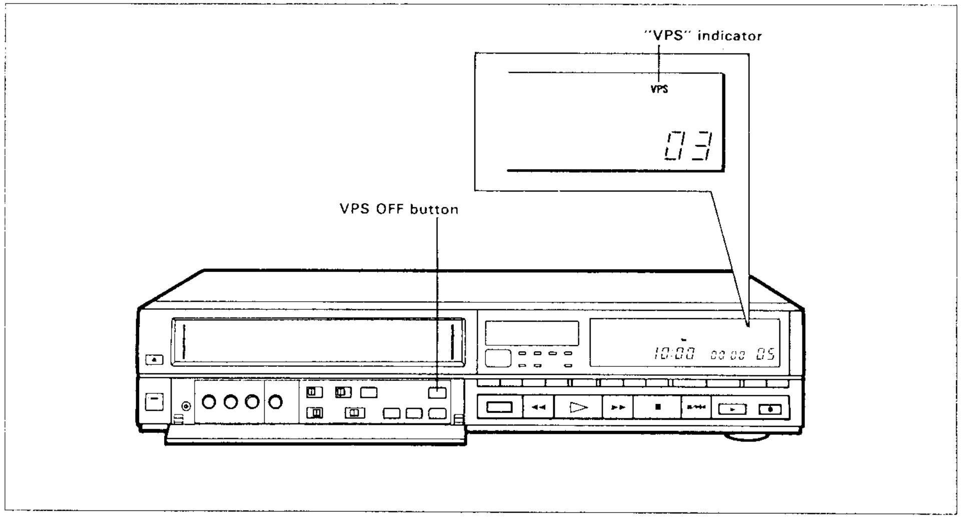
NOTE: If a power failure occurs, the programmed information will be maintained. However, if the power failure continues for 15 minutes or longer, the present time will be erased.
Set the clock correctly.

VPS (Video Programme System) FUNCTION [For WG/AEP]

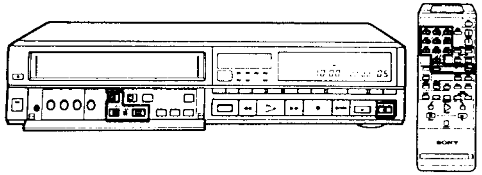
The SLV-802 incorporates the VPS function.
If the VTR is tuned to a TV station transmitting a VPS signal, the VTR automatically takes any delay, earliness or extension of the programme into account and can record the specified programme.
For example, assume that you programme the timer for a football game on channel 8 from 19:00 to 20:45 on Saturday and the football game which is broadcast is changed to 21:00 to 23:00, the VPS function works and the VTR records the football game automatically from 21:00 to 23:00.
When the VTR is tuned to a station transmitting a VPS signal, "VPS" automatically appears in the display of the VTR.
Programming the timer for unattended recording automatically turns on the VPS function.

NOTES:

1. To switch off the VPS function, press the VPS OFF button once during programming of the timer so the "VPS" display disappears.
   Pressing the button again turns VPS on.
2. Always programme the timer for one TV programme to record the programme with the VPS function turned on. If you programme the timer for a football game and a movie on channel 3 sequentially from 10:00 to 14:00 for example, only the football game will be recorded but the movie will not.
   In this case, programme the timer with the VPS off or input the other programme using another programme number to turn the VPS function on again.
3. When the VTR is tuned to a station transmitting a VPS signal but the signal conditions are poor, "VPS" will flash in the display.
   In this case, programme the timer with VPS turned off. If you programme the timer with VPS turned on, the VPS function does not operate normally.
4. This function can also be used during ordinary recording as an auto stop function. When the VTR is recording a TV programme transmitting the VPS signal, the VPS indicator will light automatically; press the VPS OFF button at this time. The VPS indicator will change to flashing. When the TV programme ends, the recording will stop automatically and the VTR will enter the stop mode.

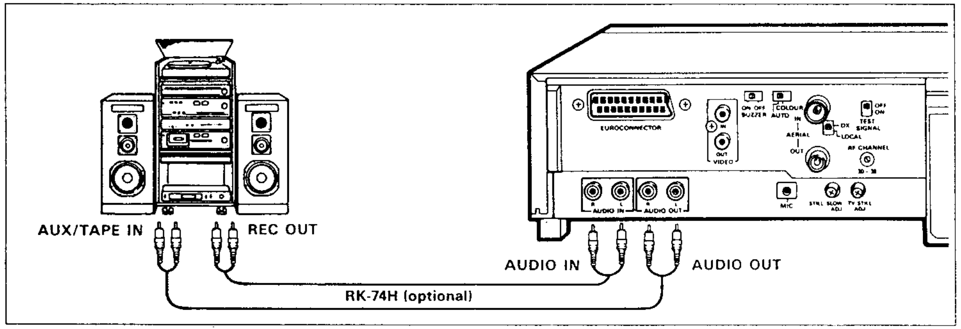


RECORDING AND PLAYBACK OF SIMULCASTS



Simulcast recording allows you to record a programme which is being transmitted simultaneously by a television station and a radio station in stereo. For simulcast recording and stereo playback, you will need audio cables.

CONNECTIONS



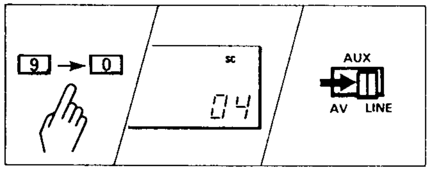
To record simulcasts

1 Connect the audio cable to the AUDIO IN (R and L) jacks of your VTR and to the recording output jacks (right and left) of your stereo system.

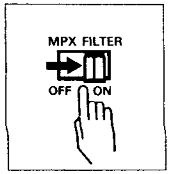
2 Set the FM tuner of the stereo system to the FM station broadcasting the simulcast stereo audio.

3 Follow the same steps 1 and 2 for "RECORDING TV PROGRAMMES" on page 13.

4 Press buttons [9] and [0] on the Remote Commander so that the SC (simulcast) indicator lights in the display window.
Then set the AUX selector to LINE.



5 Set the MPX FILTER switch to ON.



6 Press the REC button. Now, recording starts.

7 If you want to listen to the programme in stereo while recording, turn down the sound of your TV and turn up the sound of your stereo system.

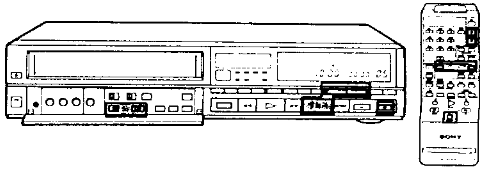
Note: The sound from FM tuner is recorded on hi-fi track and the TV sound is recorded on linear track. Change over the AUDIO MONITOR selector when playing back the tape; you can select the sound on the Hi-Fi or linear track.

To playback in stereo

1. Connect the audio cable to the AUDIO OUT (R and L) jacks of your VTR and to the auxiliary or tape input jacks (right and left) of your stereo system.
2. Then follow the steps for PLAYBACK (page 16.), turning down the sound of your TV.

Note: For operation of your stereo system, see its operation manual.

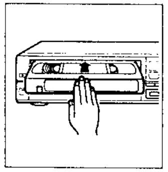
USING AS AN AUDIO DECK



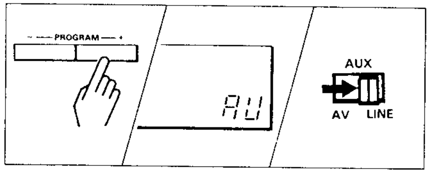
Hi-Fi sound can be enjoyed using this VTR as an audio deck when connected to an audio system.

1 Connect this VTR and the stereo system as for "RECORDING AND PLAYBACK OF SIMULCASTS" on page 25.
Do not connect any equipment to the VIDEO IN jack of this VTR.

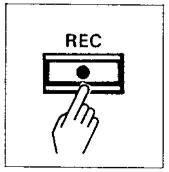
2 Insert a cassette.



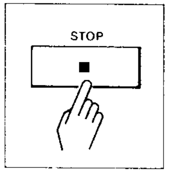
3 Press the PROGRAM select button so that the AU (auxiliary) indicator lights in the display window. Then set the AUX selector to LINE.
Note: You can also select "AU" by pressing buttons [9] and [1] on the Remote Commander.



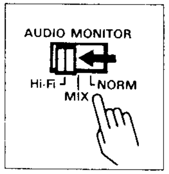
4 Press the REC button.



5 To stop recording, press the STOP button.



6 To play back, rewind the tape and set the AUDIO MONITOR selector to Hi-Fi, then press the PLAY button.

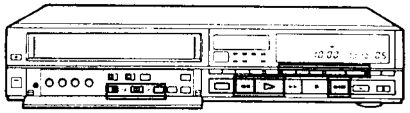


Notes:

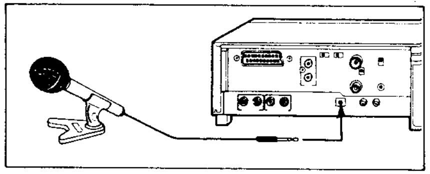
- It is not required to turn the TV on.
- Only audio is recorded and video is not recorded when nothing is connected to the video in jack.
- In this recording mode, the VTR is in the long play mode (maximum recording time using a E-240 cassette is 8 hours).

AUDIO DUBBING

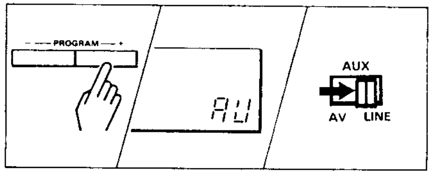
Audio dubbing is the process of recording new audio in place of the audio that was formerly recorded on the linear audio track. Audio dubbing does not disturb the recorded video and it does not disturb the audio that was formerly recorded on the VHS hi-fi track. The source for the Audio Dubbing is "whatever you are hearing".



1 Plug a microphone into the MIC jack on the back of the VTR, or connect the audio source to either (or both) AUDIO IN jacks. (Stereo inputs will be mixed and recorded in monaural on the linear track.)



2 Press the PROGRAM button to display the AU indicator, then set the AUX selector to LINE.
Note: You can also select "AU" by pressing [9] and [1] on the Remote Commander.

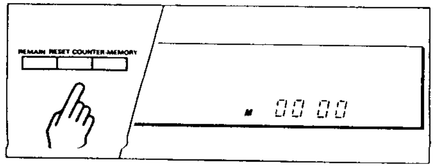


3 Play the tape you intend to modify to the point where dubbing is to end and stop the tape.

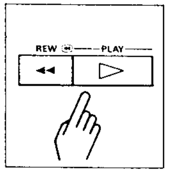
4 If the VTR is in the Time Remaining mode, press the REMAIN button to put the VTR in the tape counter mode.

5 Press the MEMORY button to turn on the memory indicator. An "M" will appear whenever the memory is turned on.

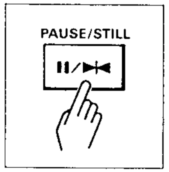
6 Press the RESET button to set the tape counter to 0000.



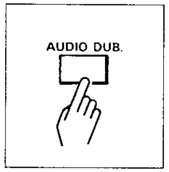
7 Press the PLAY button and then use the REW button to locate a point a few seconds before dubbing is to begin.



8 Press the PLAY button and then the PAUSE button exactly where dubbing is to begin.
VTR enters the play/pause mode.

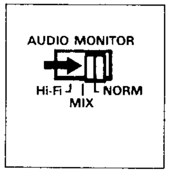


9 Press the AUDIO DUB button.
Note: The tape will be played back momentarily in the reverse direction without colour.



10 Press the PAUSE button to begin dubbing.

The VTR will stop at counter reading 0000. If you do not want the audio dubbing to stop at a predetermined point, omit steps 3 through 6, and press the STOP button to stop dubbing.

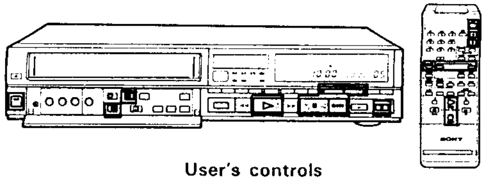


After you have dubbed in audio, use the AUDIO MONITOR selector to select the audio for playback. You may also monitor the audio being dubbed by switching to the NORM position. This will not affect the dubbing.

- "Hi-Fi" plays back the audio that was originally recorded on the hi-fi track.
- "NORM" plays the audio that you dubbed in.
- "MIX" plays the audio recorded on both the hi-fi track and the linear track. Therefore, you will have "sound-on-sound" when you play a dubbed tape using mixed audio output.

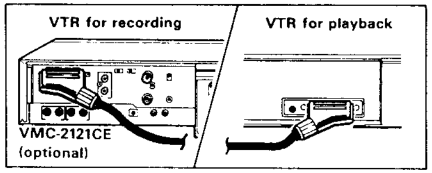
BASIC EDITING

This VTR allows you easy connection with another VTR by using the 21-pin EUROCONNECTOR located on the rear panel of the VTR.
Select the connecting cables which will match the type of connectors. (See the next page.)

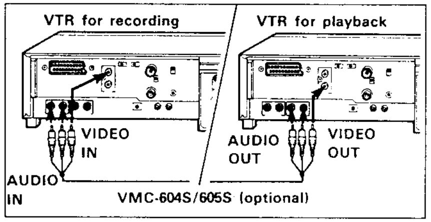


User's controls

1 Connect a second VTR to this VTR.

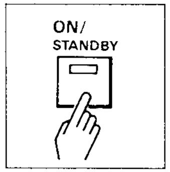


In this case, the TV must be connected to VIDEO/AUDIO OUT or AERIAL OUT on the VTR.
VIDEO/AUDIO IN/OUT jacks may be used for editing.

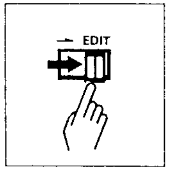


Note: When using the EUROCONNECTOR, set the input selector on the VTR for playback to tuner input. If the selector is set to line (auxiliary) input, noise may occur.

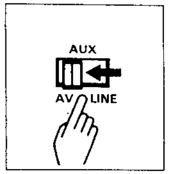
2 Switch both VTRs and TV on.



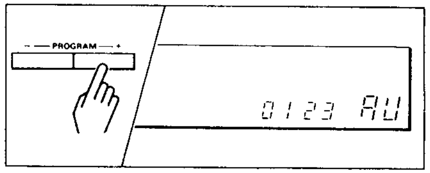
3 If you use this VTR for playback, set the EDIT switch to the right.



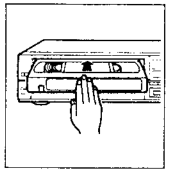
4 Set the AUX selector on the recording VTR according to the connector used.



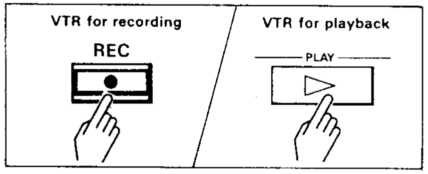
5 Press the PROGRAM select button to select AU (auxiliary input) position if using this VTR as a recorder.
Note: You can also select "AU" by pressing buttons [9] and [1] on the Remote Commander.



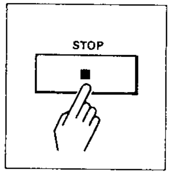
6 Insert a blank cassette into the VTR for recording, and source cassette into the playback VTR.



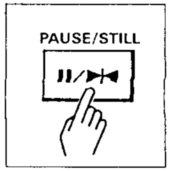
7 Press the REC button on recording VTR and PLAY on the playback VTR.



8 To end tape editing, press both STOP buttons.

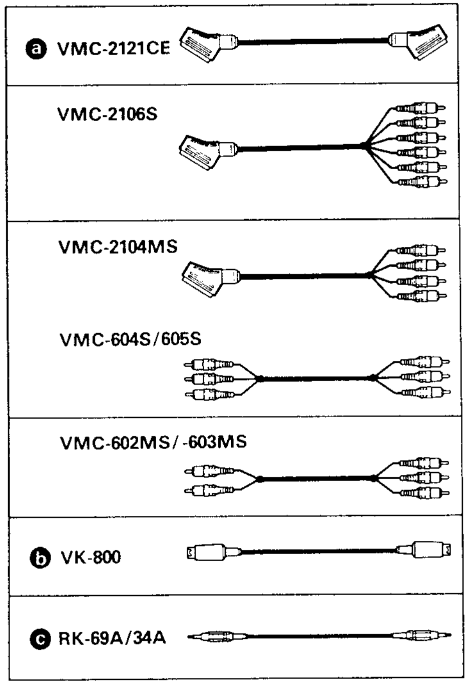


To edit out unwanted material
If you want to edit out unwanted material press the PAUSE/STILL button at the appropriate time on the recording VTR while it is recording. Press the PAUSE/STILL again to resume recording.



Optional connecting cables

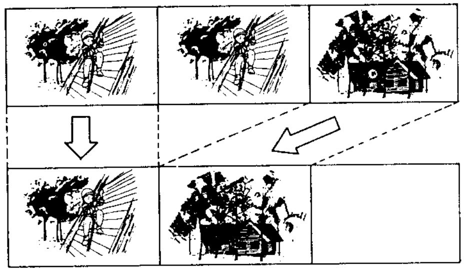
ⓐ Audio and video connection
ⓑ Control L connection
ⓒ Control S connection



SYNCHRO EDITING

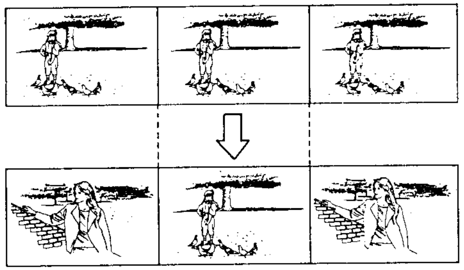
If another Sony VTR with intercomponent control terminals is used with this unit, use of the SYNCHRO EDIT button brings you much more convenience in editing operations.
Once you have set them in tape editing standby mode, you can start and stop playback/recording simultaneously with both units simply by pressing the SYNCHRO EDIT button on the VTR or the Commander.
Two methods of synchro-editing are available:

When this unit is used as a player



"Assemble editing" can be made.
On this unit, designate the desired scenes of the original tape.
These scenes can be "assembled" (=recorded) onto the other tape of another VTR.

When this unit is used as a recorder



"Automatic insert editing" can be made.
On this unit, locate a portion of the tape on which any scenes from other original tape must be "inserted".

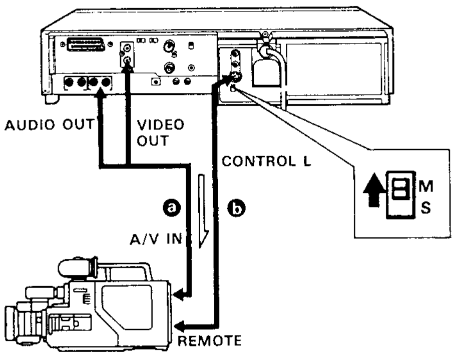
Notes:

- Do not use simultaneously the above "synchro-editing" and the insert recording function of the VTR (ex. CCD-V8 series) which is used with this unit.
- If the VTR to be used with this unit is equipped with the CONTROL L connector and the CONTROL S IN jack, make the connection to the CONTROL S IN jack. If the CONTROL L connector is used, the editing may not be made correctly.
- When the inserted tape is played back, the picture may be distorted at the end of the inserted programme.

Editing tapes from this unit to the 8 mm video camera/cassette recorder having a 5-pin REMOTE connector

—Assemble editing—

Connection



Connect the CONTROL L connector of this unit to the REMOTE connector of the video camera/cassette recorder.
For connecting cables, see page 27.

Before operating

Set the MASTER/SLAVE selector on the rear panel to MASTER.

Operation

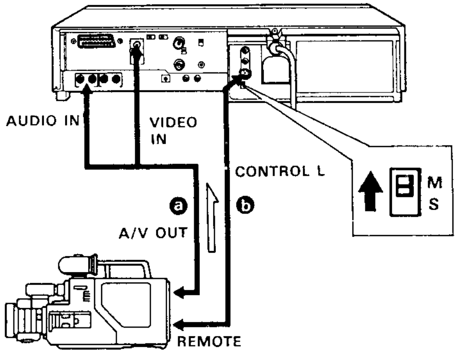
1. Play back the tape and decide the starting point of the recording.
2. Set to the recording pause mode.
3. Play back the tape and decide the ending point of the recording.
4. Press COUNTER RESET to display "0000" in the window.
5. Rewind the tape and decide the starting point of the recording.
6. Set to the playback pause mode.
7. Press SYNCHRO EDIT.
   Playback and recording start simultaneously.
   When the counter reaches "0000" point, editing stops automatically and each unit enters the playback or recording pause mode.
   Repeat steps 3 to 7.

To stop the on-going editing operation, press SYNCHRO EDIT or STOP.

Editing tapes from the 8 mm video camera/cassette recorder having a 5-pin REMOTE connector to this unit

—Automatic insert editing—

Connection



Connect the CONTROL L connector of this unit to the REMOTE connector of the video camera/cassette recorder.
For connecting cables, see page 27.

Before operating

Set the MASTER/SLAVE selector on the rear panel to MASTER.
Press the PROGRAM select button to select AU.

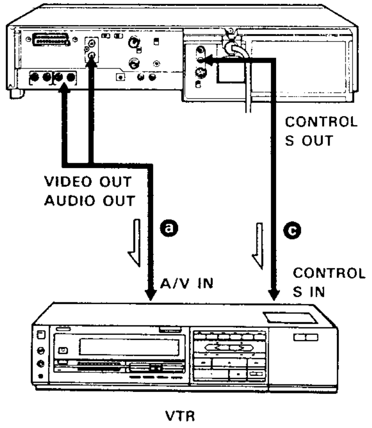
Operation

1. Play back the tape and decide the starting point of the recording.
2. Set to the playback pause mode.
3. Play back the tape and decide the ending point of the recording.
4. Press COUNTER RESET to display "0000" in the window.
5. Rewind the tape and decide the starting point of the recording.
6. Set to the recording pause mode.
7. Press SYNCHRO EDIT.
   Playback and recording start simultaneously.
   When the counter reaches the "0000" point, editing stops automatically and each unit enters the playback or recording pause mode.

To stop the on-going editing operation, press SYNCHRO EDIT or STOP.

Editing tapes from this unit to a Betamax or 8 mm VTR having a CONTROL S IN jack
—Assemble editing—

Connection



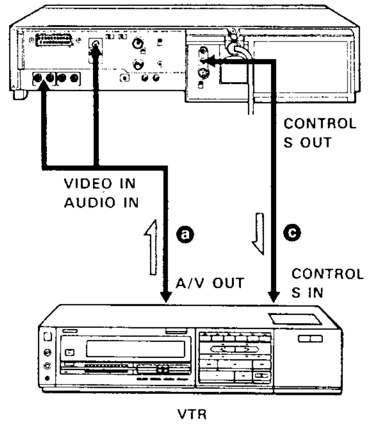
Connect the CONTROL S OUT jack of this unit to the CONTROL S IN jack of another VTR.
For connecting cables, see page 27.

Operation

Operation is the same as that is described in "Assemble editing" on page 27.

Editing tapes from a Betamax or 8 mm VTR having a CONTROL S IN jack to this unit
—Automatic insert editing—

Connection



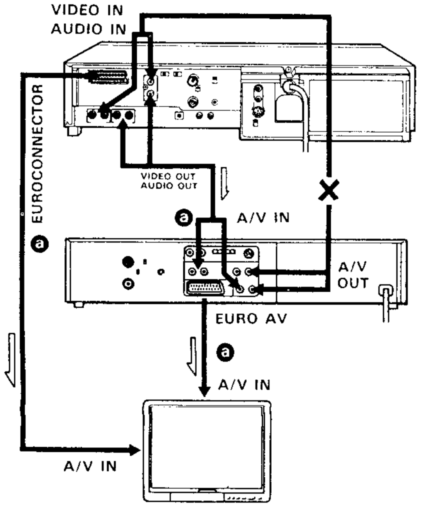
Connect the CONTROL S OUT jack of this unit to the CONTROL S IN jack of another VTR.
For connecting cables, see page 27.

Operation

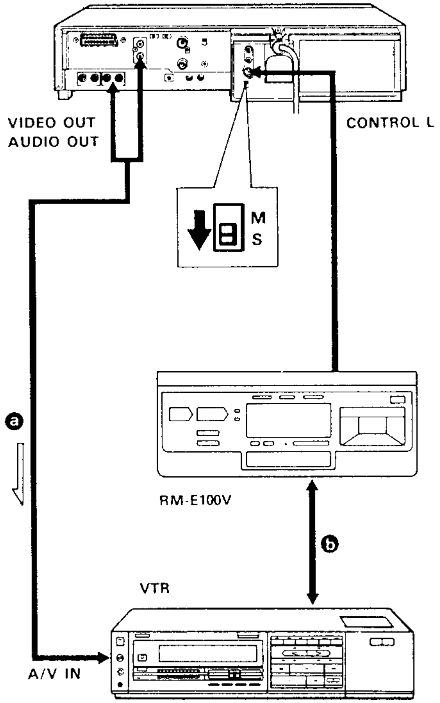
Operation is the same as that is described in "Automatic insert editing" on page 27.

Caution

Do not make the audio/video in and out connections simultaneously between two VTRs.



Editing tapes from this unit to certain VTRs by using the RM-E100V editing controller

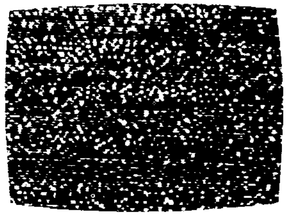


Connect the RM-E100V between the VTR and this unit. With this controller, you will be able to preset the locations of the scenes you want to record (up to 8) in the controller and with a press of a button, these scenes will be recorded by this unit automatically in the order preset.
For details, refer to the instruction manual of the RM-E100V.

Note: Set the MASTER/SLAVE selector of this unit to SLAVE.

MAINTENANCE

1. To maintain the optimum performance of this VTR, regular periodic maintenance is required. Your dealer will advise you further.
2. Maintenance and adjustments may not be carried out by the user. In all cases of difficulty or doubt, consult your dealer.
3. Head cleaning
    - Dirt accumulated on the video heads after a period of time may cause the playback picture to become blurred or part of the video information to be lost. This does not mean that the recorded programme has been erased but head cleaning is required which must be carried out by your dealer.
    - Under no circumstances we do recommend users to attempt to clean the video heads as this is done only effectively by removal of the top cover to gain access to the video heads and other parts which require cleaning, which would expose live conductors and present a "shock" hazard.
    - In regard to the various head cleaning tapes which are currently available on the market, these can cause damage and also reduce the operational life of the video heads if used incorrectly. Please consult your dealer as to the suitability of any cleaning aids before purchase.



PROBLEM GUIDE

PROBLEM	THINGS TO CHECK	SOLUTION
No power	• Is mains lead connected?	• Connect mains lead with AC outlet.
Timer recording is not possible.	• Is the recording time set correctly? • Is the ON/STANDBY switch set to "STANDBY"? • Is the record safety tab missing?	• Set the recording time correctly. • Set the ON/STANDBY switch to "STANDBY". • Place cellophane tape over missing safety tab.
Recording mode can't be engaged.	• Is the record safety tab missing?	• Place cellophane tape over missing safety tab.
Picture is poor in playback.	• Is the TV set to the correct channel? • Is the TV fine tuning set correctly?	• For playback, the TV should be set to channel 37. • Fine tune your TV.
Noise in picture in playback	• Are Video Heads clean?	• Head cleaning is necessary.
No picture in playback	• Is the TV set to the correct channel?	• Set to correct channel. (for your video channel)
Playback picture is partially noisy.	• Is the TRACKING control set to center position?	• Adjust TRACKING control for the best picture.
Off-the-air TV programme cannot be seen.	• Is connection correct?	• Connect correctly.

DISASSEMBLY

1. IDENTIFICATIONS AND LOCATIONS OF CIRCUIT BOARDS

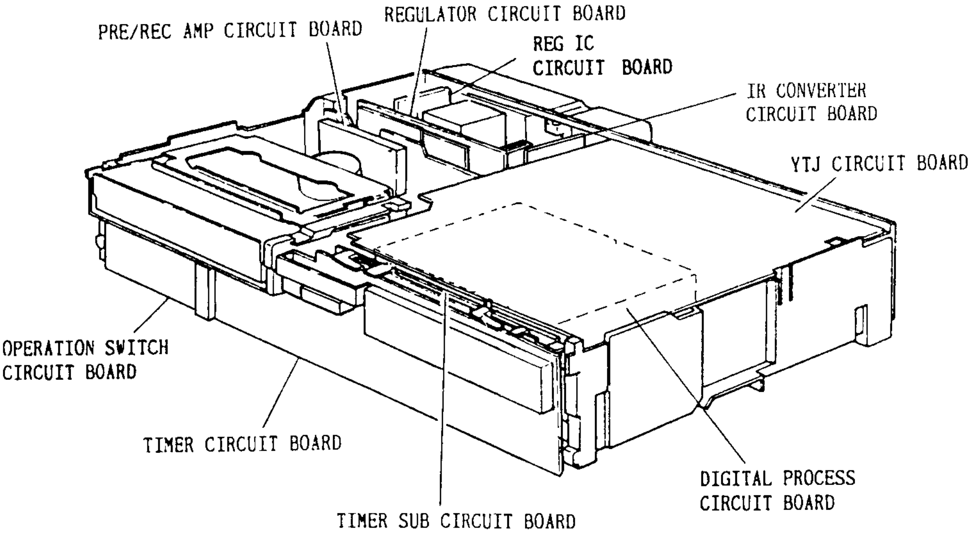

PRE/REC AMP CIRCUIT BOARD
REGULATOR CIRCUIT BOARD
REG IC CIRCUIT BOARD
IR CONVERTER CIRCUIT BOARD
YTJ CIRCUIT BOARD
OPERATION SWITCH CIRCUIT BOARD
TIMER CIRCUIT BOARD
DIGITAL PROCESS CIRCUIT BOARD
TIMER SUB CIRCUIT BOARD

Fig. 1-1 Top View

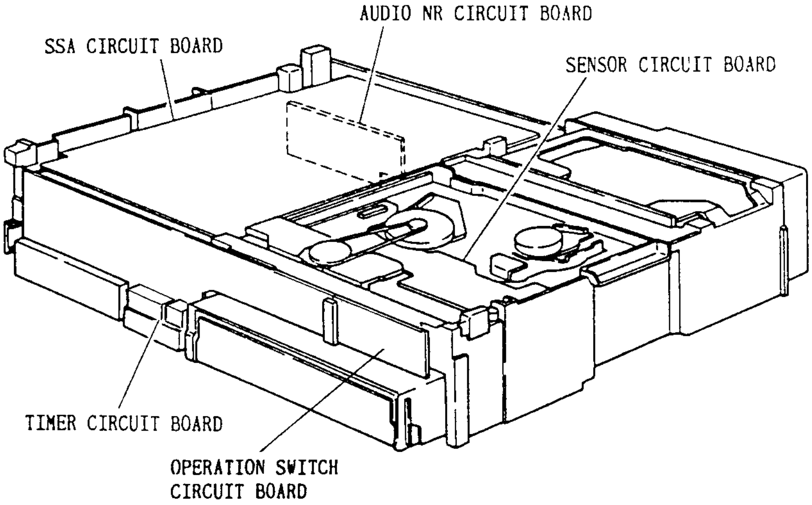
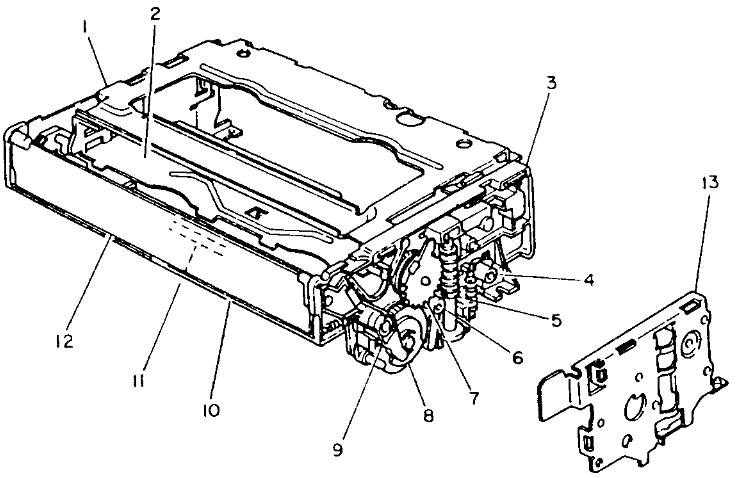

AUDIO NR CIRCUIT BOARD
SSA CIRCUIT BOARD
SENSOR CIRCUIT BOARD
TIMER CIRCUIT BOARD
OPERATION SWITCH CIRCUIT BOARD

Fig. 1-2 Bottom View

2. IDENTIFICATIONS AND LOCATIONS OF MAIN MECHANICAL COMPONENTS


1
2
3
13
4
5
6
7
8
9
10
11
12

1. CHASSIS HOLDER
2. CASSETTE HOLDER
3. GEAR BRACKET
4. SWITCH LEVER B
5. FL WORM GEAR
6. SWITCH LEVER A
7. WORM WHEEL
8. DRIVE GEAR
9. DOOR ARM
10. FRONT HOLDER
11. SHAFT PIN
12. CASSETTE DOOR
13. SIDE CHASSIS

Fig. 2-1 Cassette Loading Mechanism

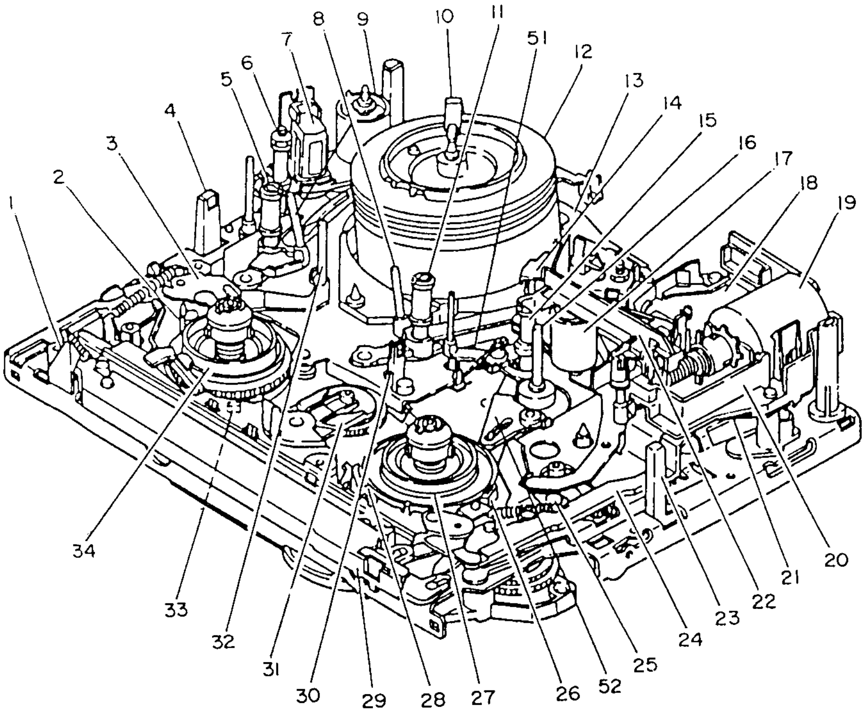


Fig. 2-2 Top View of Mechanism

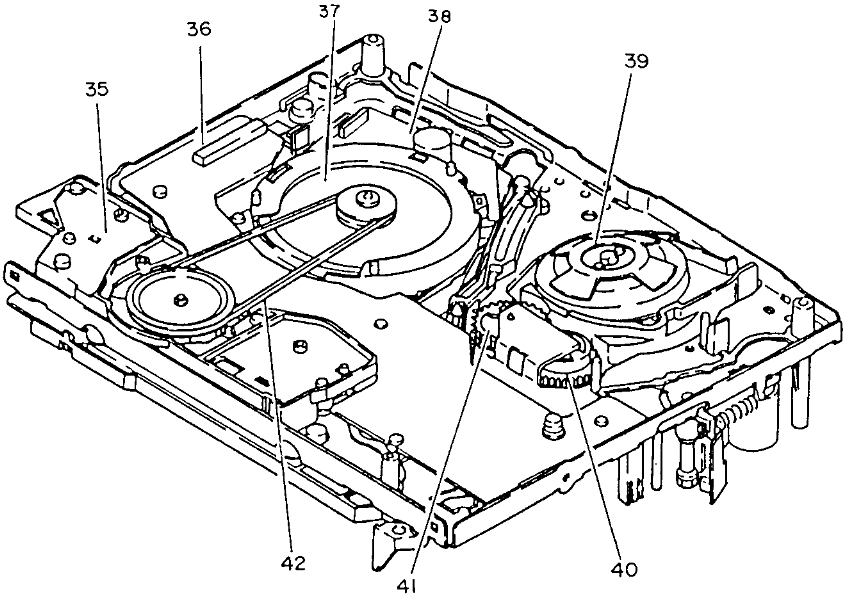


Fig. 2-3 Bottom View of Mechanism

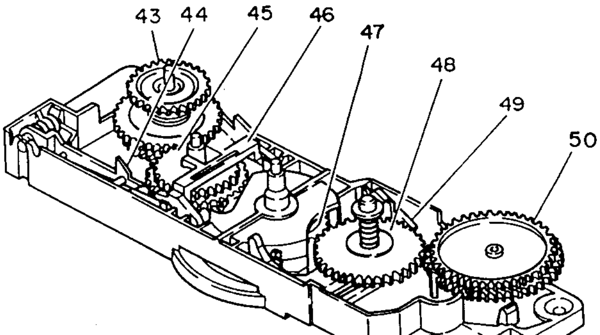


Fig. 2-4 Clutch Base

1. SAFETY ARM
2. TENSION BAND ASSEMBLY
3. TENSION ARM
4. SUPPLY REEL SENSOR
5. SUPPLY GUIDE ROLLER
6. SUPPLY GUIDE POLE
7. FULL ERASE (FE) HEAD
8. ANGLE POSTS
9. IMPEDANCE ROLLER
10. STATIC DISCHARGE BRUSH
11. TAKE-UP GUIDE ROLLER
12. CYLINDER MOTOR ASSEMBLY
13. CYLINDER BASE
14. AUDIO/CONTROL (A/C) HEAD
15. TAKE-UP POLE
16. CAPSTAN SHAFT
17. PRESSURE ROLLER ASSEMBLY
18. MECHANISM STATE SWITCH
19. LOADING MOTOR ASSEMBLY
20. LOADING MOTOR HOLDER
21. LOAD BRACKET ASSEMBLY
22. CASSETTE LID OPENER
23. TAKE-UP REEL SENSOR
24. BRAKE LINK ARM
25. PRESSURE ROLLER OPERATION ARM
26. TAKE-UP BRAKE ASSEMBLY
27. TAKE-UP REEL TABLE
28. TAKE-UP MAIN BRAKE
29. SLIDER BLOCK ASSEMBLY
30. END LAMP
31. REEL DRIVE IDLER
32. TENSION POLE
33. SUPPLY MAIN BRAKE
34. SUPPLY REEL TABLE
35. CLUTCH BASE ASSEMBLY
36. SENSOR C.B.A
37. CAPSTAN MOTOR ASSEMBLY
38. CAPSTAN MOTOR C.B.A
39. CYLINDER MOTOR ASSEMBLY
40. SUPPLY LOADING GEAR
41. TAKE-UP LOADING GEAR
42. REEL BELT
43. TAKE-UP GEAR
44. CLUTCH ARM
45. CHANGE GEAR
46. CHANGE ARM
47. TAKE-UP PULEY
48. FL CHANGE GEAR
49. FL CHANGE LEVER
50. RELAY GEAR
51. HALF LOADING ARM
52. RELAY ARM

3. CASE REMOVAL

1. Preset Door
2. Top Cover
3. Bottom Cover
4. Front Panel
5. Rear Panel

The numbers in parantheses in the illustrations show the order of removal.

1. Preset Door (Fig. 3-1)

1) Open the preset door and, while depressing down two (2) attachment sections, pull the door out in the direction of the arrows.

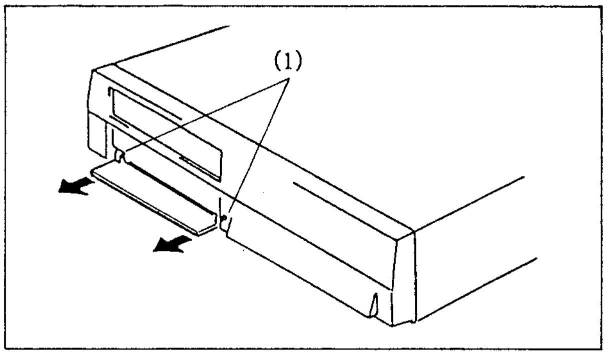


Fig. 3-1 Preset Door

2. Top Cover (Fig. 3-2)

1) Remove five (5) screws.
2) Lift up the rear of the top cover and slide the entire cover backwards.

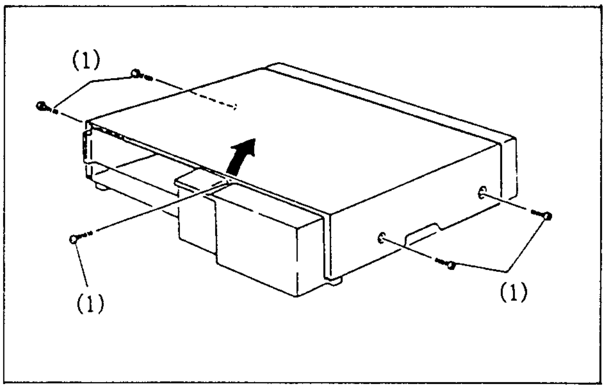


Fig. 3-2 Top Cover

3. Bottom Cover (Fig. 3-3)

1) Remove three (3) screws to back out the bottom supports on the left and right.
2) Remove five (5) screws. Lift up the rear of the bottom cover.

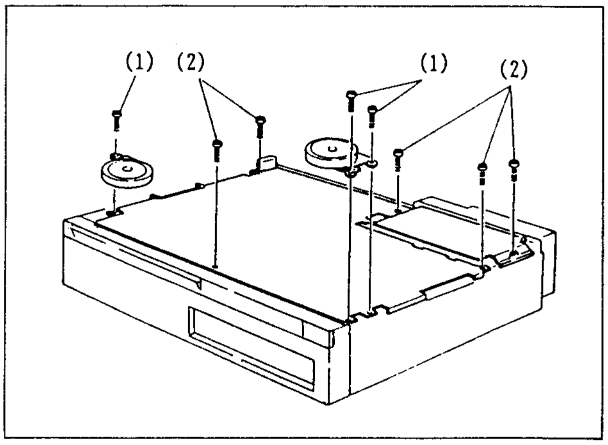


Fig. 3-3 Bottom Cover

4. Front Panel (Fig. 3-4)

1) Remove the preset door and the top and bottom covers. (See items 1,2 and 3)
2) Release eight (8) stoppers.
3) Pull out the bottom of the front panel and remove the entire panel.

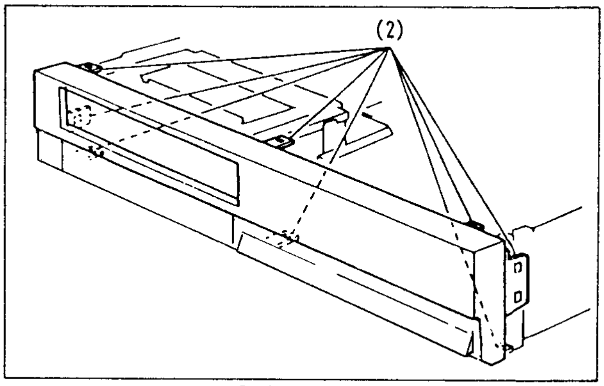


Fig. 3-4 Front Panel

5. Rear Panel (Fig. 3-5)

1) Remove the top cover. (See items 2)
2) Open the YTJ circuit board. (See item 3 in the section on circuit board removal)
3) Remove two (2) nylon rivets.
4) Remove one (1) screw holding the video I/O jacks and remove two (2) screws holding the EURO JACK.
5) Release one (1) stopper holding the RF converter and pull out the rear panel backwards.

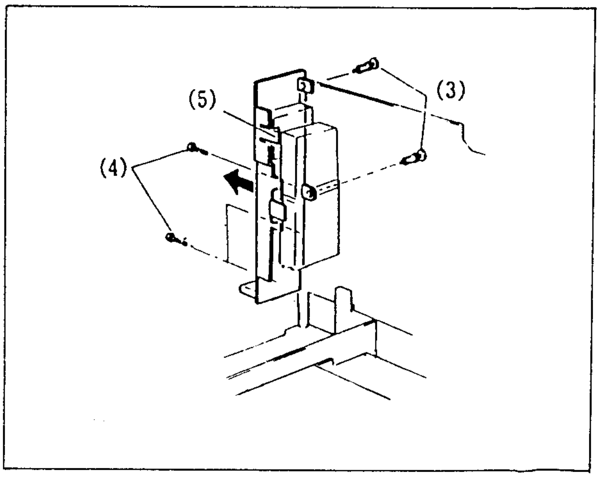


Fig. 3-5 Rear Panel

4. CIRCUIT BOARD REMOVAL

1. Timer and Operation Switch Circuit Boards
2. Timer Sub Circuit Board
3. YTJ and IR Converter Circuit Boards
4. SSA Circuit Board
5. Audio NR Circuit Board
6. Regulator Circuit Board
7. Pre/Rec Amp Circuit Board
8. Sensor Circuit Board
9. Digital Process Circuit Board

1. Timer and Operation Switch Circuit Boards (Fig. 4-1)

1) Remove the top and bottom covers and front panel. (See item 2 to 4 in the section on case removal)
2) Release nine (9) stoppers and remove the block containing the timer and operation switch circuit boards.
3) Disconnect one (1) connector on the timer circuit board.
4) Release three (3) stoppers holding the timer circuit board.

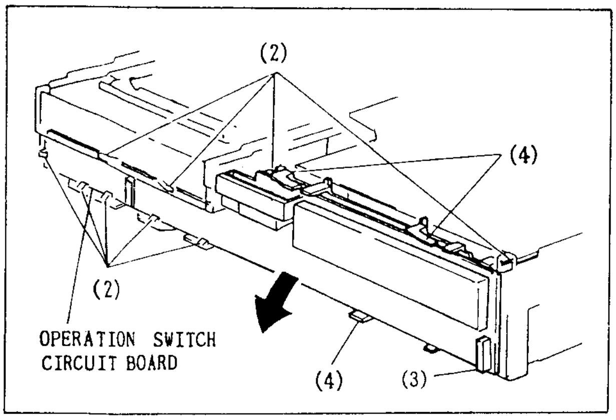


Fig. 4-1 Timer and Operation Switch Circuit Boards

2. Timer sub Circuit Board (Fig. 4-2)

1) Remove the top and bottom covers and front panel. (See items 2 to 4 in the section on case removal)
2) Remove the block containing the timer and operation switch circuit boards. (See item 1)
3) Disconnect eight (8) connectors from the timer sub circuit board.
4) Release two (2) stoppers holding the circuit board holder and tilt the top of the timer sub circuit board to remove it.

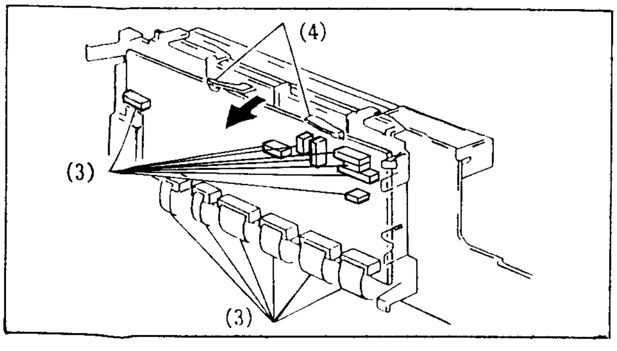


Fig. 4-2 Timer Sub Circuit Board

3. YTJ and IR Converter Circuit Boards (Figs. 4-3, 4-4)

1) Remove the top cover. (See item 2 in the section on case removal)
2) Remove the rear piece and one (1) screw to release the ground wire.
3) Remove one (1) screw to release the ground wire.
4) Remove three (3) screws.
5) Release four (4) stoppers and open the YTJ circuit board in the direction of the arrow.
6) Disconnect twelve (12) connectors.
7) Disconnect four (4) connectors.
8) Pull out the IR converter circuit board in the direction of the arrow.

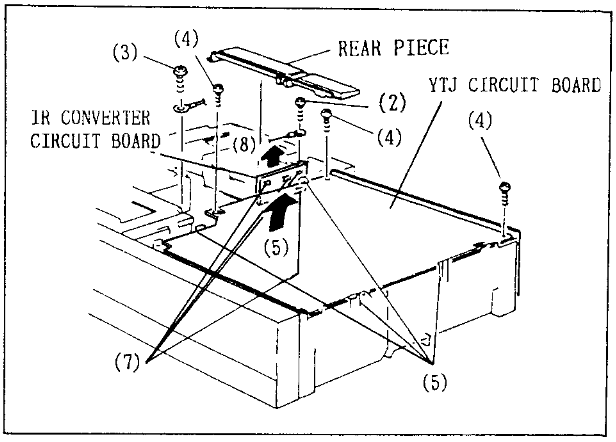


Fig. 4-3 YTJ and IR Converter Circuit Board

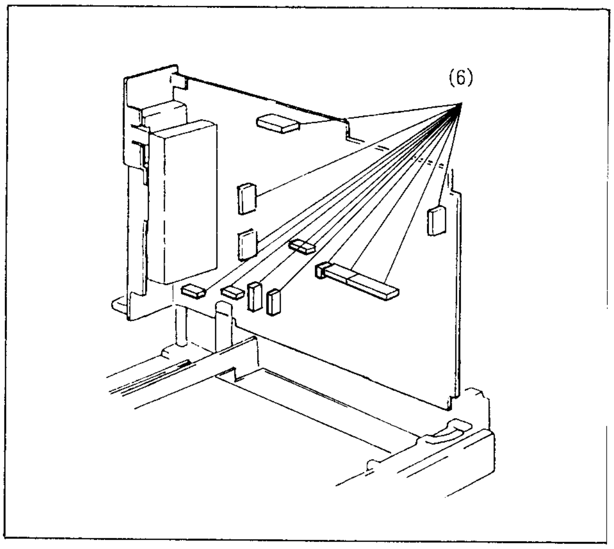


Fig. 4-4 YTJ Circuit Board

4. SSA Circuit Board (Fig. 4-5, 4-6)

1) Remove the top and bottom covers. (See items 2 and 3 in the section on case removal)
2) Remove two (2) screws.
3) Disconnect one (1) connector from the capstan motor and the flat cable from the sensor circuit board.
4) Release four (4) stoppers holding the circuit board and open the circuit board in the direction of the arrow.
5) Disconnect sixteen (16) connectors.
6) Disconnect one (1) connector from the IR converter circuit board.

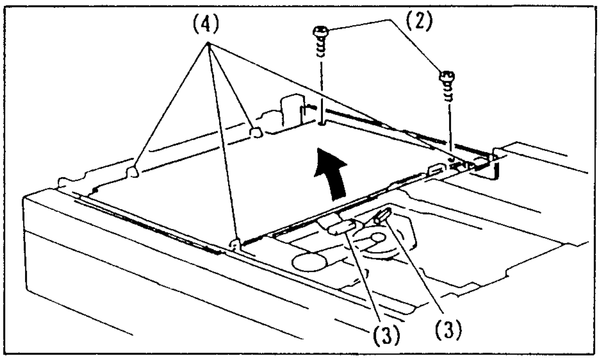


Fig. 4-5 SSA Circuit Board

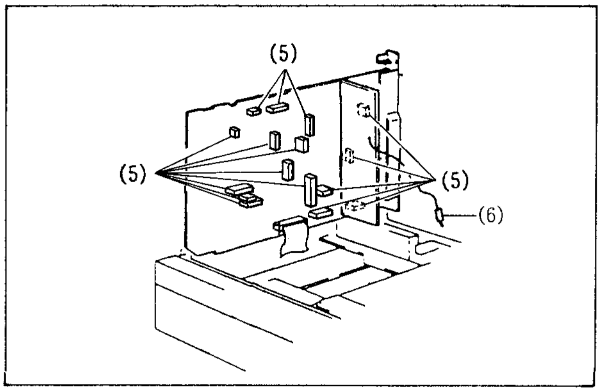


Fig. 4-6 SSA Circuit Board

5. Audio NR Circuit Board (Fig. 4-7)

1) Remove the bottom cover. (See item 3 in the section on case removal)
2) Open the SSA circuit board. (See item 4)
3) Pull out the audio NR circuit board in the direction of the arrow.

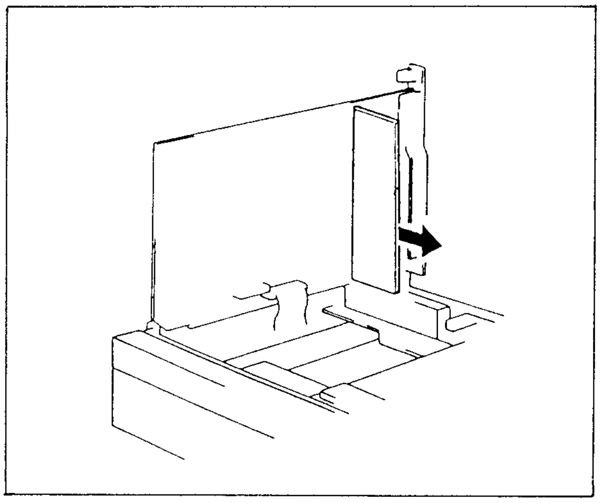


Fig. 4-7 Audio NR Circuit Board

6. Regulator Circuit Board (Fig. 4-8 — 4-10)

1) Remove the top cover. (See item 2 in the on case removal)
2) Remove one (1) screw holding the bottom cover.
3) Release two (2) stoppers to remove the rear piece.
4) Remove three (3) screws and lift up the regulator circuit block to pull it out.
5) Disconnect four (4) connectors from the regulator circuit board.
6) Remove two (2) regulator IC retaining screws near the heat sink.
7) Remove four (4) screws holding the power transformer.
8) Remove one (1) screw holding the regulator circuit board and remove the circuit board and power transformer from the regulator holder.
9) Release three (3) P.C.B supports and open the regulator circuit board in the direction of the arrow for servicing.

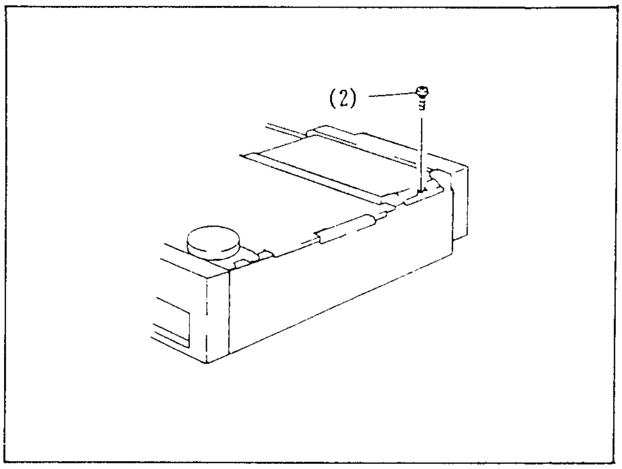


Fig. 4-8 Regulator Circuit Block

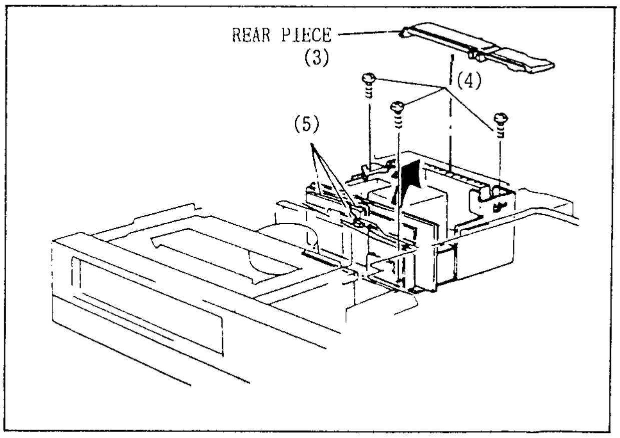

REAR PIECE
(3)
(4)
(5)

Fig. 4-9 Regulator Circuit Block

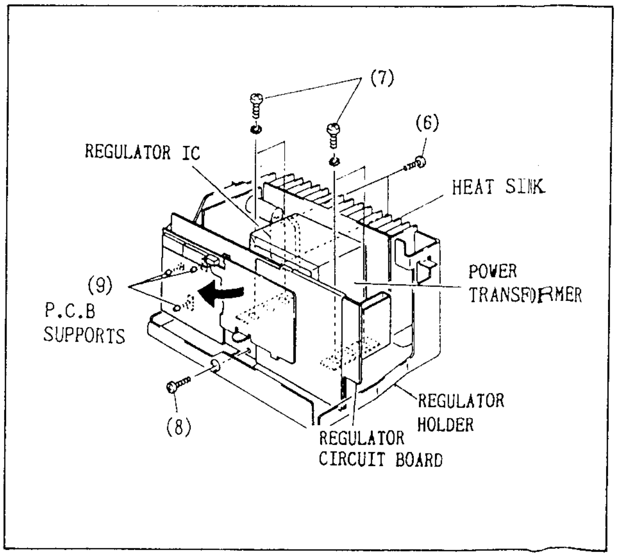

(7)
(6)
REGULATOR IC
HEAT SINK
POWER TRANSFORMER
(9)
P.C.B SUPPORTS
(8)
REGULATOR HOLDER
REGULATOR CIRCUIT BOARD

Fig. 4-10 Regulator Circuit Board

7. Pre/Rec Amp Circuit Board (Fig. 4-11)
   1) Remove the top cover. (See item 2 in the section on case removal)
   2) Disconnect two (2) connectors.
   3) Remove one (1) screw.
   4) Disconnect the connector connected to the cylinder motor while lifting up the pre/rec amp circuit board.

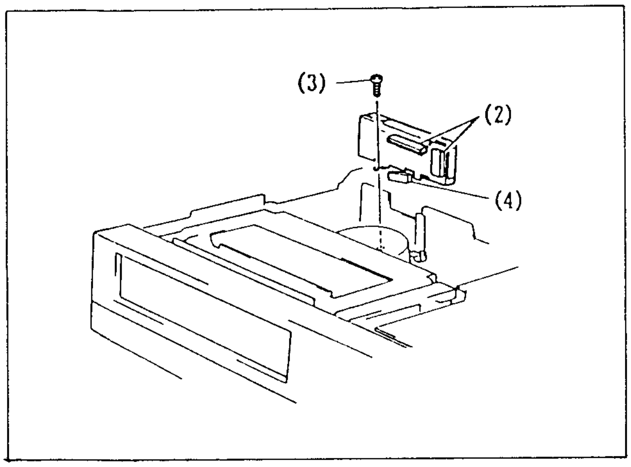


Fig. 4-11 Pre/Rec Amp Circuit Board

8. Sensor Circuit Board (Fig. 4-12)
   1) Remove the bottom cover. (See item 2 in the section on case removal)
   2) Disconnect the flat cable and connector from the sensor circuit board.
   3) Disconnect the connector from the cylinder motor circuit board.
   4) Remove four (4) screws and lift up the sensor circuit board.

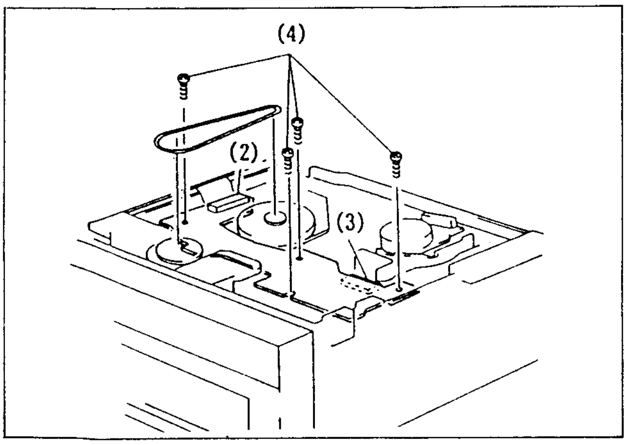


Fig. 4-12 Sensor Circuit Board

9. Digital Process Circuit Board (Fig. 4-13)
   1) Remove the top cover. (See item 2 in the section on case removal)
   2) Open the YTJ circuit board. (See item 3)
   3) Remove one (1) screw.
   4) Disconnect three (3) connectors.
   5) Release three (3) stoppers.

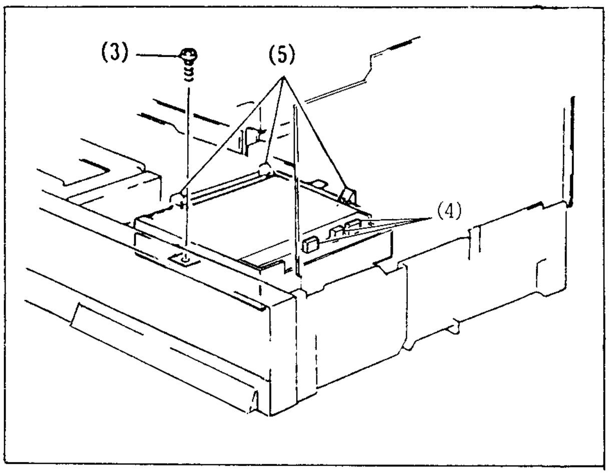


Fig. 4-13 Digital Process Circuit Board

5. CASSETTE LOADING MECHANISM REMOVAL

1. Cassette Loading Mechanism

* Components listed below will be described as if the top and bottom covers and the front panel have already been removed. (See items 2, 3 and 4 in the section on case removal)

2. Cassette Door
3. Loading Gear Assembly
4. Chassis Holder
5. Cassette Holder Assembly
6. Front Holder Assembly
7. Cassette Holder Base
8. Cassette Holders (L/R)

1. Cassette Loading Mechanism (Fig. 5-1)

1) Remove the top cover and front panel. (See items 2 and 4 in the section on case removal)
2) Remove one (1) screw to release the ground wire on the YTJ circuit board.
3) Remove two (2) screws.
4) Lift up the rear of the mechanism and release the fittings on the front bottom.

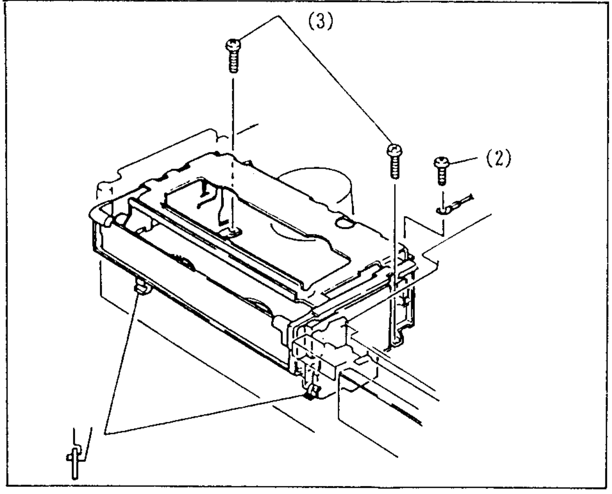


Fig. 5-1 Cassette Loading Mechanism

2. Cassette Door (Fig. 5-2)

1) Push the left of the front holder outward in the direction of the arrow and remove the cassette door.

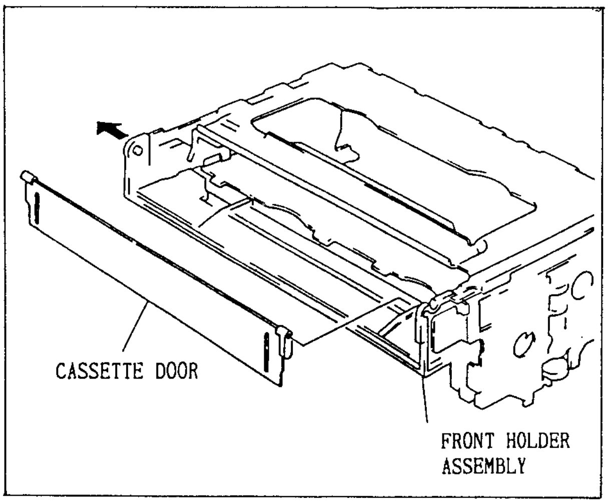


Fig. 5-2 Cassette Door

3. Loading Gear Assembly (Fig. 5-3)

1) Release two (2) tabs that fit with the chassis holder and one (1) tab that fits with the front holder, then separate the loading gear assembly.

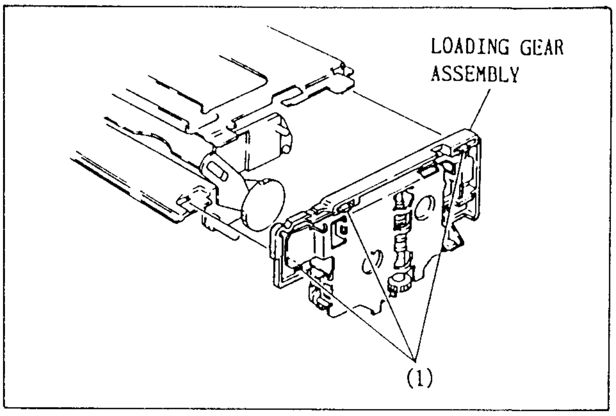


Fig. 5-3 Loading Gear Assembly

4. Chassis Holder (Fig. 5-4)

1) Release two (2) tabs that fit with the front holder assembly.

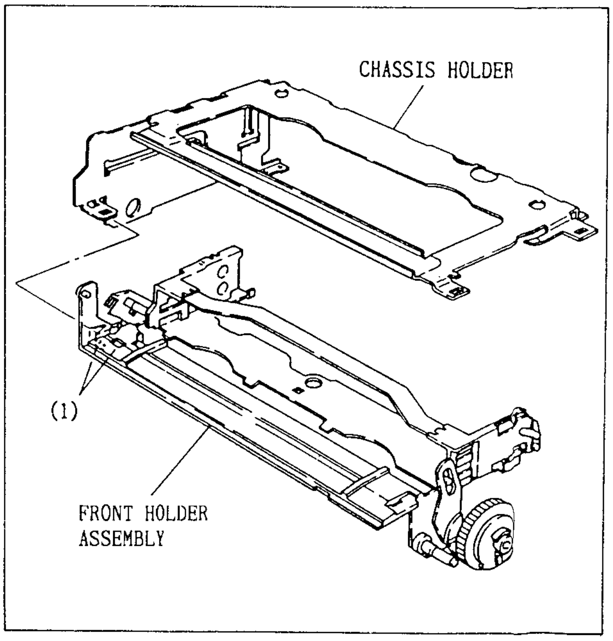


Fig. 5-4 Chassis Holder

5. Cassette Holder Assembly (Fig. 5-5)

1) Push the cassette holder assebly outward in the directions of the arrows to remove it.

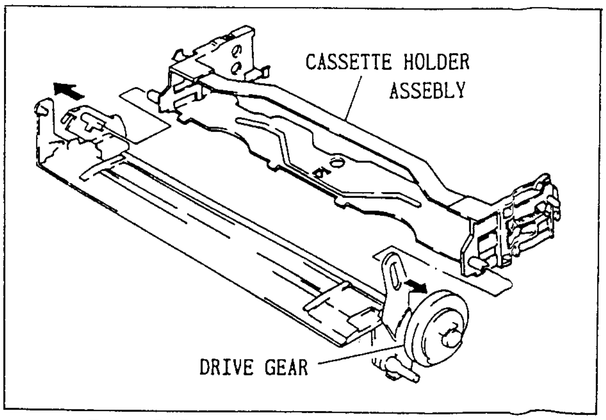


Fig. 5-5 Cassette Holder Assembly

6. Front Holder Assembly (Fig. 5-6)

1) Remove the shaft pin and drive arm (L).

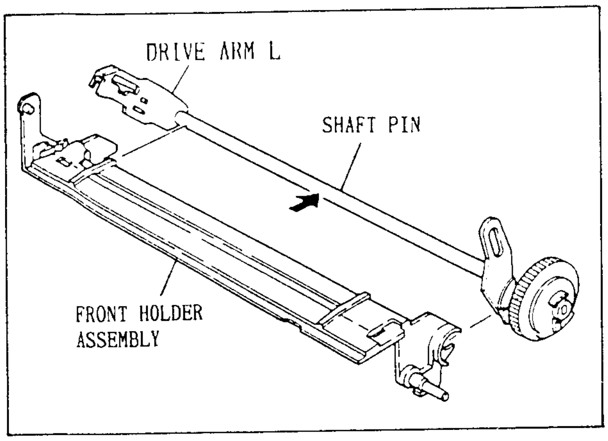

DRIVE ARM L
SHAFT PIN
FRONT HOLDER ASSEMBLY

Fig. 5-6 Front Holder

7. Cassette Holder Base (Fig. 5-7)

1) Release four (4) tabs on both sides of the cassette holder assembly.

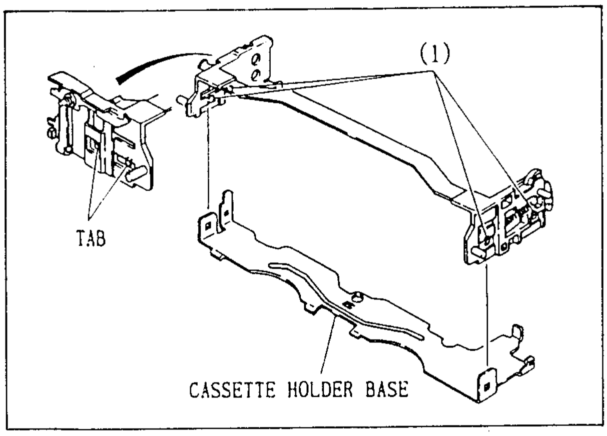

(1)
TAB
CASSETTE HOLDER BASE

Fig. 5-7 Cassette Holder Base

8. Cassette Holder (L/R) (Fig. 5-8)

1) Release the tabs of cassette holders L and R.

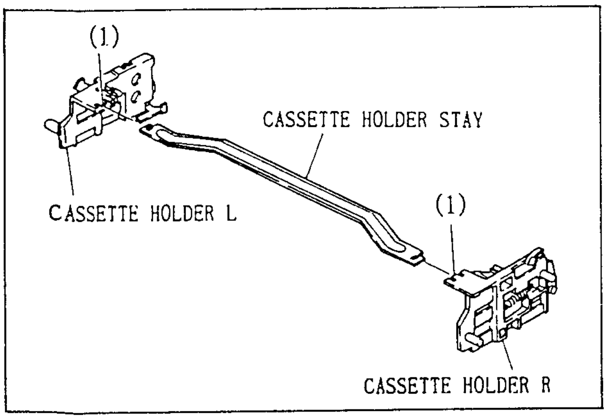

(1)
CASSETTE HOLDER STAY
CASSETTE HOLDER L
(1)
CASSETTE HOLDER R

Fig. 5-8 Cassette Holder (L/R)

[Cautions on reinstalling]

Reinstall the components by the reverse procedure to removal, taking care of the following items.

- * Check that two (2) bosses of the cassette holder are inserted into the grooves in the left of the chassis holder. (See Fig. 5-9)
- * When reinstalling the loading gear assembly, check that two (2) bosses of the cassette holder are inserted into the grooves in the right of the chassis holder. (See Fig. 5-10)
- * Check that marking (◇) on the synchro gear and marking (△) on the clutch gear are aligned. (See Fig. 5-10)
- * Check that the boss of cassette switch lever (A) is set to the cam of the synchro gear. (See Fig. 5-10)
- * When reinstalling the cassette door, check that the boss of the door arm is inserted into the groove in the cassette door. (See Fig. 5-10)

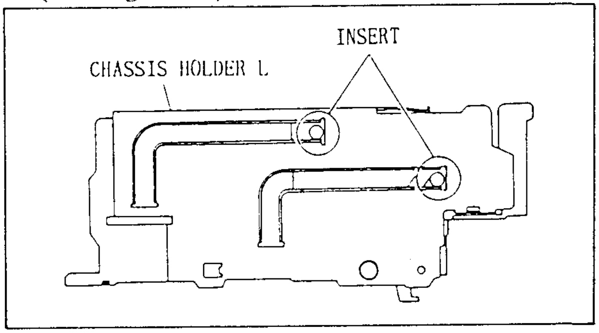

INSERT
CHASSIS HOLDER L

Fig. 5-9

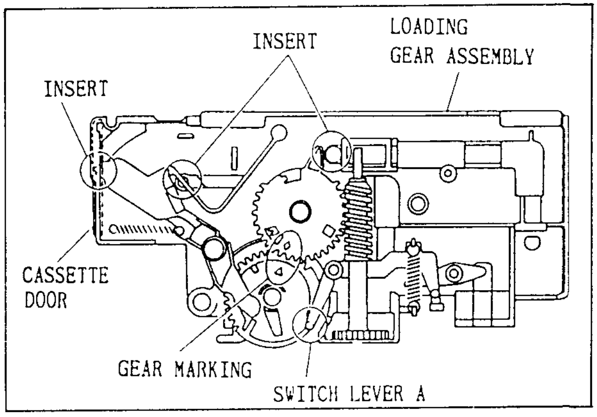

INSERT
LOADING GEAR ASSEMBLY
INSERT
CASSETTE DOOR
GEAR MARKING
SWITCH LEVER A

Fig. 5-10

6. LOADING GEAR REMOVAL

1. Side Chassis
2. FL Worm Gear, Door Arm, Worm Wheel, Switch Levers A/B

1. Side Chassis (Fig. 6-1)

1) Release four (4) tabs linking the loading gear to the side chassis.

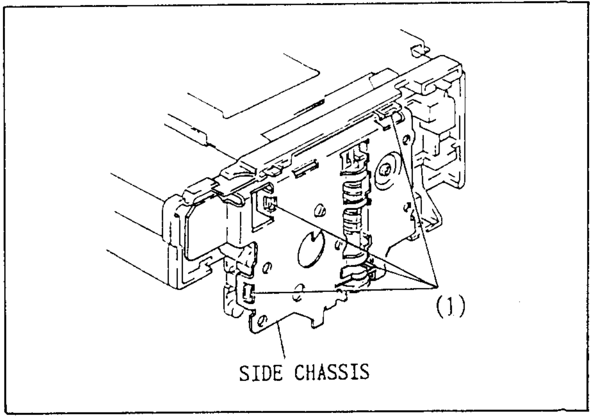

(1)
SIDE CHASSIS

Fig. 6-1 Side Chassis

2. FL Worm Gear, Door Arm, Worm Wheel, Switch Levers A/B (Fig. 6-2)

1) Pull out the FL worm gear.

2) Pull out the door arm.
3) Pull out the worm wheel.
4) Remove the spring between switch lever A and the gear bracket.
5) Pull out switch levers A and B.

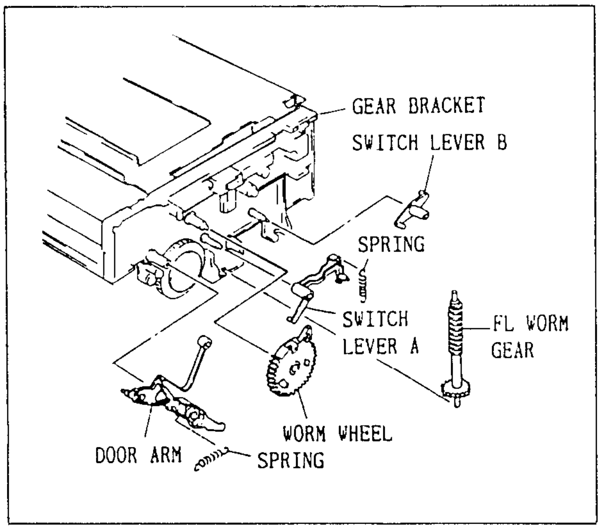


Fig. 6-2 FL Worm Gear, Door Arm, Worm Wheel, Switch Levers A/B

7. MAIN MECHANICAL COMPONENTS REMOVAL

Heads

1. Impedance Roller/FE (Full Erase) Head
2. A/C (Audio/Control) Head

Motors

3. Cylinder Motor Assembly
4. Capstan Motor Assembly
5. Loading Motor/Mechanism State Switch Assembly

Miscellaneous

6. Slider Block Assembly
7. Tension Arm/Tension Band
8. Reel Drive Idler
9. Supply Reel Disk
10. Take-up Reel Disk
11. Pressure Roller Assembly
12. Supply Guide Pole
13. Take-up Guide Pole
14. Guide Rollers
15. Loading Motor Block
16. Brake Link Arm and Brake Change Arm
17. Half Loading Arm
18. Relay Arm
19. Load Bracket Assembly
20. Brake Operation Arm
21. Mode Gear
22. Worm Wheel
23. Take-up Brake Assembly
24. Pressure Roller Operation Arm
25. Brake Lift Arm
26. FS Brake Arm
27. Cylinder Motor Base
28. Supply/Take-up Loading Arms
29. Take-up Pulley
30. Clutch Gear
31. Take-up Gear
32. Change Arm and Change Gear
33. Relay Gear
34. FL Change Gear and FL Change Lever

1. Impedance Roller/FE(Full Erase) Head (Fig. 7-1)

1) Remove the top cover. (See item 2 in the section on case removal)
2) Remove the spring between the FE head base and chassis.
3) Disconnect the connector.
4) Remove the nut holding the guide pole and pull out the pole.
5) Release one (1) tab and remove the impedance roller/FE head.
6) To remove the FE head, release two (2) tabs and pull out the FE head.

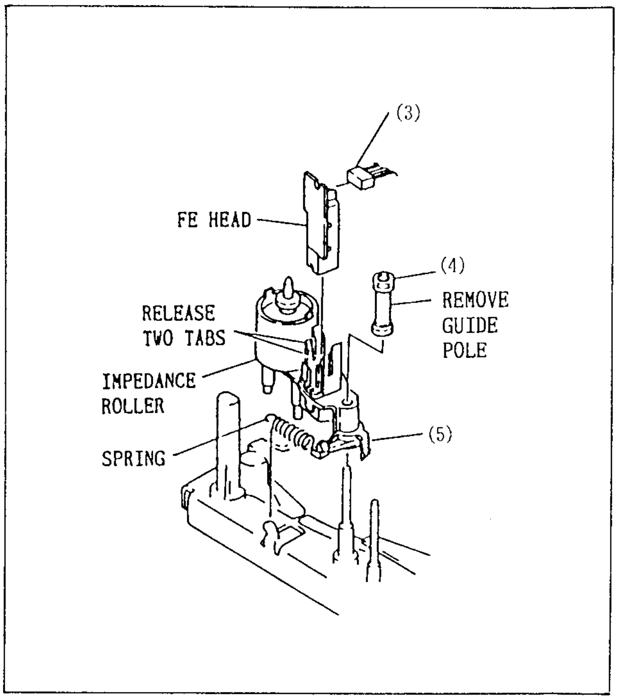


Fig. 7-1 Impedance Roller/FE (Full Erase) Head

2. A/C (Audio/Control) Head (Fig. 7-2)

1) Remove the top cover. (See item 2 in the section on case removal)
2) Disconnect the connector.
3) Remove the nut holding the head base and pull the base up and out.

* Hook the bottom of the spring under the head base to the chassis and the top to the stopper of the head base.

〔Cautions when reinstalling〕

* Check that the spring section of the A/C head retaining screw protrudes 6.3mm above the top of head base (1).
* Check that head bases (1) and (2) are parallel.

〔Adjustments after reinstallation〕

A/C Head Adjustment
X Value Adjustment
Audio Playback Level Adjustment
Audio Bias Level Adjustment

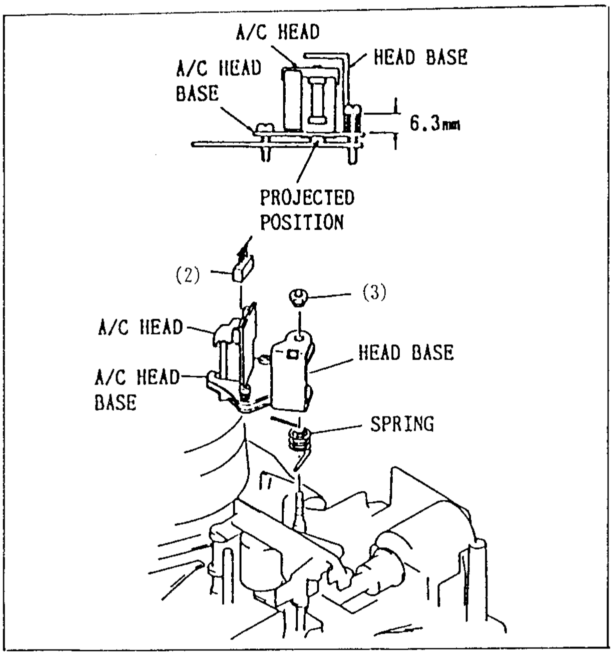

A/C HEAD
A/C HEAD BASE
HEAD BASE
6.3mm
PROJECTED POSITION
(2)
(3)
A/C HEAD
HEAD BASE
A/C HEAD BASE
SPRING

Fig. 7-2 A/C (Audio/Control) Head

3. Cylinder Motor Assembly (Fig. 7-3)
 1) Remove the top cover. (See item 2 in the section on case removal)
 2) Remove one (1) screw and the static discharge brush.
 3) Pull out the PRE/REC circuit board.

〈Bottom Side〉
 4) Remove the bottom cover. (See item 3 in the section on case removal)
 5) Disconnect the connector from the cylinder motor circuit board.
 6) Remove three (3) screws holding the cylinder.

〈Top Side〉
 7) Pull out the cylinder motor assembly upward.

〔Cautions during work〕
 * Place the side of the unit down because the screws are in the reverse positions to those when the cylinder is removed.
 * Do not touch the video head tips with fingers or tools.

〔Adjustment after reinstallation〕
 Adjustments after replacing the cylinder

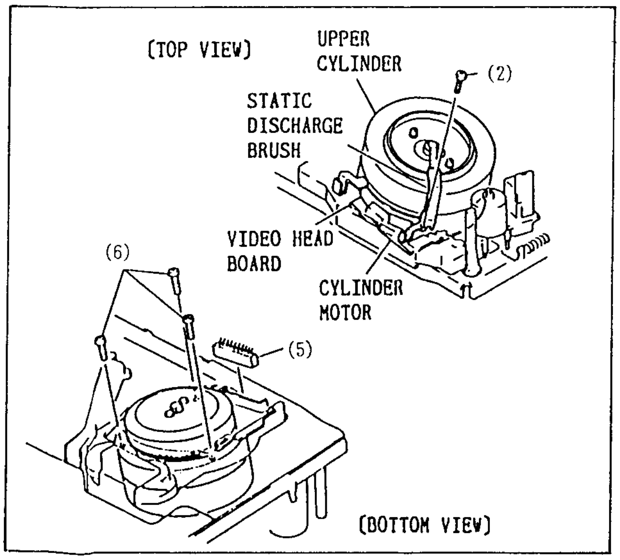

〔TOP VIEW〕
UPPER CYLINDER
(2)
STATIC DISCHARGE BRUSH
VIDEO HEAD BOARD
CYLINDER MOTOR
(6)
(5)
〔BOTTOM VIEW〕

Fig. 7-3 Cylinder Motor Assembly

4. Capstan Motor Assembly (Fig. 7-4)
 1) Remove the bottom cover. (See item 3 in the section on case removal)
 2) Remove the reel belt.
 3) Disconnect two (2) connectors and one (1) screw.
 4) Remove three (3) screws and pull out the capstan motor assembly.
 * Keep the capstan shaft clean when removing and reinstalling the capstan motor assembly.

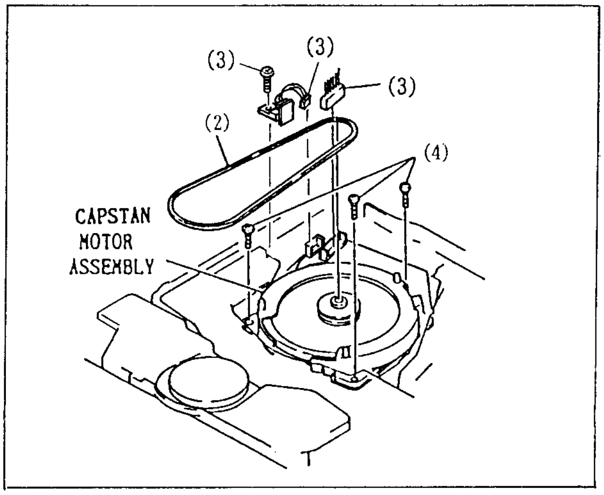

(3)
(3)
(3)
(2)
(4)
CAPSTAN MOTOR ASSEMBLY

Fig. 7-4 Capstan Motor

5. Loading Motor/Mechanism State Switch Assembly (Fig. 7-5)
 1) Remove the top cover. (See item 2 in the section on case removal)
 2) Release one (1) tab and remove the cassette lid opener.
 3) Disconnect the connector.
 4) Release two (2) tabs holding the mechanism state switch.
 5) Release four (4) tabs, and while releasing two (2) bosses of the motor holder from the screw holes in the motor, lift up the loading motor/mechanism state switch assembly.

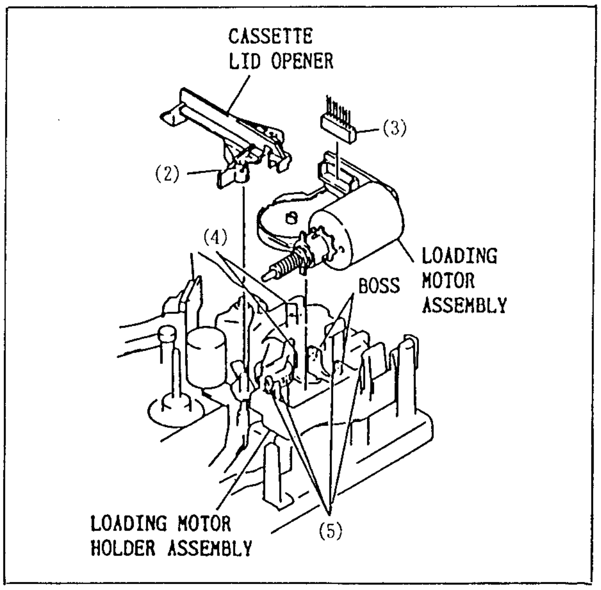

CASSETTE LID OPENER
(3)
(2)
(4)
LOADING MOTOR ASSEMBLY
BOSS
LOADING MOTOR HOLDER ASSEMBLY
(5)

Fig. 7-5 Loading Motor/Mechanism State Switch Assembly

* Components in items 6-19 are described as if the top and bottom covers, front panel and cassette loading mechanism have already been removed. (See items 2,3 and 4 in the section on case removal and item 1 in the section on cassette loading mechanism removal.)

6. Slider Block Assembly (Fig. 7-6)
 1) Remove two (2) screws.

[Cautions on installation]

* Reinstall the slider block assembly while pressing both subbrakes and the supply main brake in the directions of the arrows.
* Check that the bosses of the load bracket assembly are inserted into the sliders.

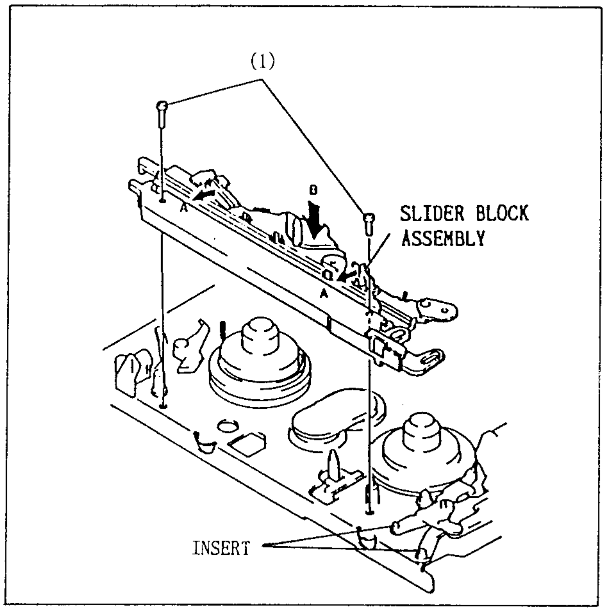


Fig. 6-7 Slider Block

7. Tension Arm/Tension Band (Fig. 7-8)
 1) Remove the spring between the tension arm and spring holder.
 2) Remove the tension band retaining screw.
 3) Release the fitting with the tension arm, move the supply subbrake in the direction of the arrow and remove the tension band and tension arm.

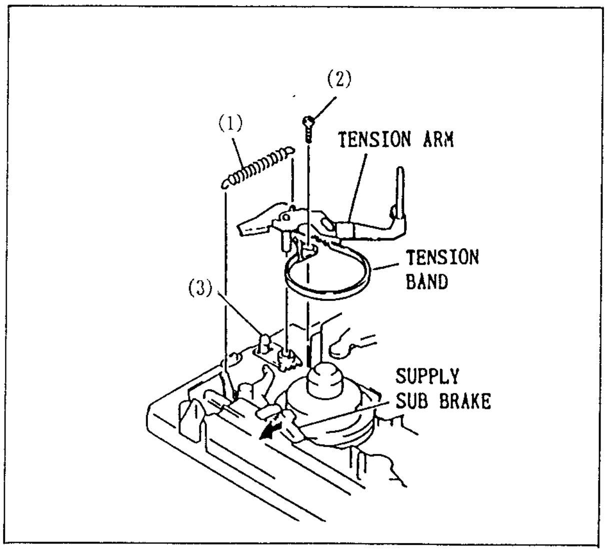


Fig. 7-7 Tension Arm/Tension Band

8. Reel Drive Idler (Fig. 7-8)
 1) Remove the slider block assembly. (See item 6)
 2) Pull out the reel drive idler from the take-up gear shaft.

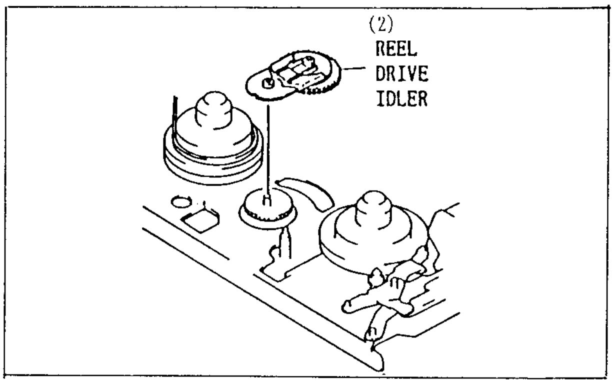


Fig. 7-8 Reel Drive Idler

9. Supply Reel Disk (Fig. 7-9)
 1) Remove the slider block assembly. (See item 6)
 2) Remove the tension arm and tension band. (See item 7)
 3) Pull out the supply reel disk.

[Caution on reinstallation]

* Check that the spacer is put on the reel disk installation shaft.

[Adjustments after reinstallation]

* Tension Pole Position and Tension Adjustments Reel Disk Height Adjustment

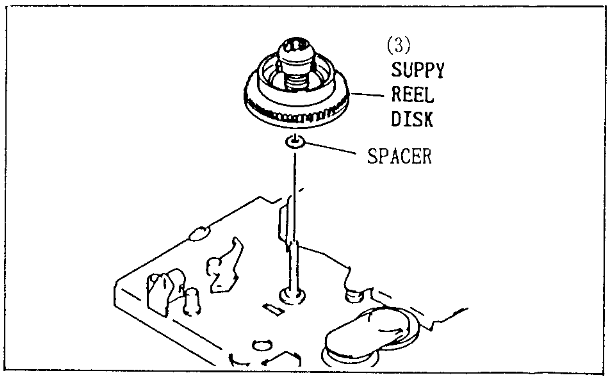


Fig. 7-9 Supply Reel Disk

10. Take-up Reel Disk (Fig. 7-10)
 1) Remove the slider block assembly. (See item 6)
 2) Move the take-up brake in the direction of the arrow and pull out the take-up reel disk.

[Caution on reinstallation]

* Check that the spacer is put on the reel disk installation shaft.

[Adjustments after reinstallation]

* Reel Disk Height Adjustment

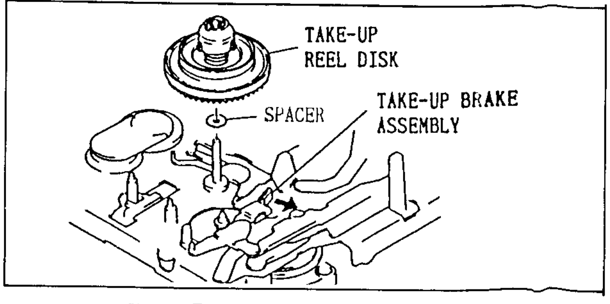


Fig. 7-10 Take-up Reel Disk

11. Pressure Roller Assembly (Fig. 7-11)

1) Release one (1) tab and remove the cassette lid opener.
2) Pull out the pressure roller assembly.

[Cautions on reinstallation]

* Check that the pin of the pressure roller assembly is inserted into the hole in the pressure roller operation arm.
* Clean the surface of the pressure roller that comes into contact with tape.

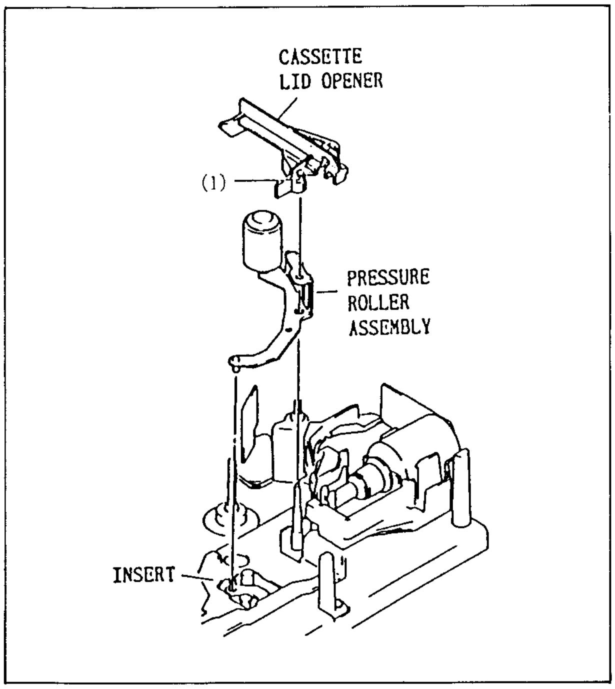


Fig. 7-11 Pressure Roller

12. Supply Guide Pole (Fig. 7-12)

1) Loosen the guide pole retaining screw and pull out the guide pole.

[Caution on reinstallation]

* Clean the surface of the guide pole that comes into contact with tape.

[Adjustment after reinstallation]

* Guide Pole Height Adjustment

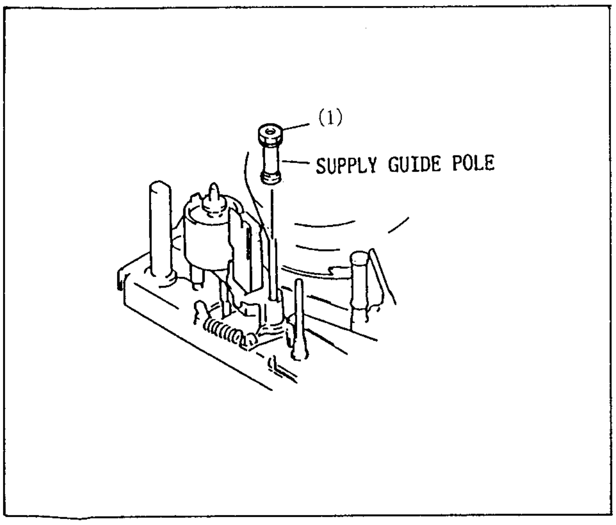


Fig. 7-12 Supply Guide Pole

13. Take-up Guide Pole (Fig. 7-13)

1) Loosen the guide pole retaining screw and pull out the guide pole.

[Caution on reinstallation]

* Clean the surface of the guide pole that comes into contact with tape.

[Adjustment after reinstallation]

* Guide Pole Height Adjustment

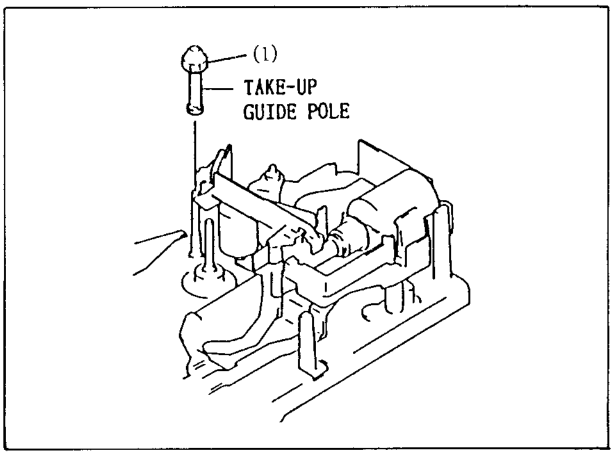


Fig. 7-13 Take-up Guide Pole

14. Guide Rollers (Fig. 7-14)

Perform the same procedure for removing the supply and take-up guide rollers.

1) Loosen the hexagonal screw retaining the guide roller.
2) Turn the guide roller counterclockwise to pull it out.

[Adjustment after reinstallation]

* Guide Pole Height Adjustment

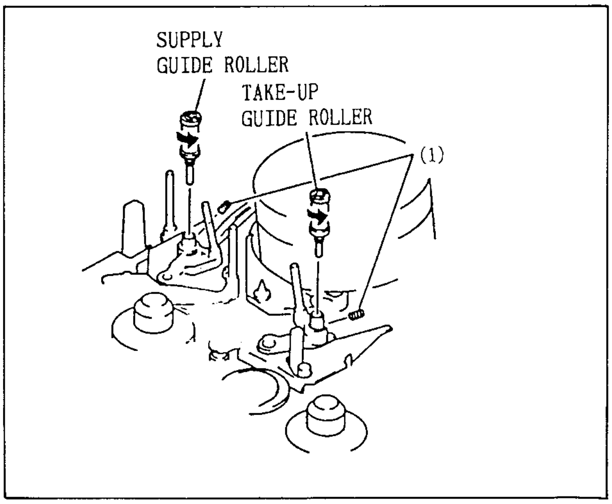


Fig. 7-14 Guide Rollers

15. Loading Motor Block (Fig. 7-15)

1) Release one (1) tab and remove the cassette lid opener.
2) Disconnect the connector from the loading motor circuit board.
3) Remove two (2) screws and release three (3) tabs.
4) Remove the loading motor and motor holder while holding arrow (A) so that the load bracket assembly does not lift.

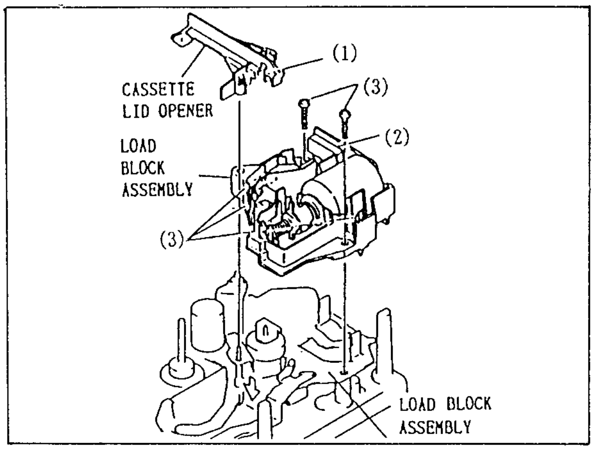

(1)
CASSETTE LID OPENER
(3)
(2)
LOAD BLOCK ASSEMBLY
(3)
LOAD BLOCK ASSEMBLY

Fig. 7-15 Loading Motor Block

16. Brake Link Arm and Brake Change Arm (Fig. 7-16)
 1) Remove the slider block assembly. (See item 6)
 2) Remove the loading motor block. (See item 15)
 3) Release one (1) tab and remove the brake change arm.
 4) Remove the spring between the brake link arm and load bracket assembly.
 6) Release the boss of the brake lift arm and remove the brake link arm.

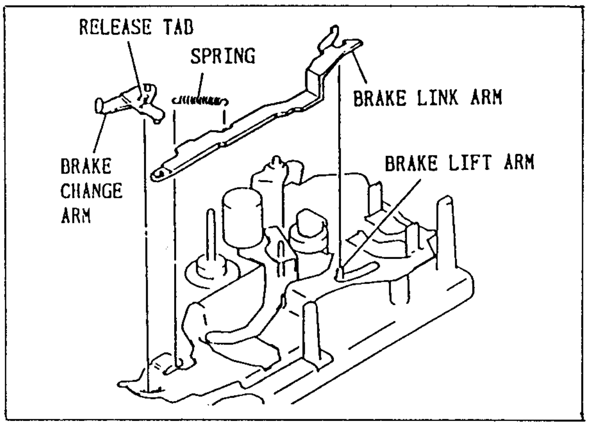

RELEASE TAB
SPRING
BRAKE LINK ARM
BRAKE CHANGE ARM
BRAKE LIFT ARM

Fig. 7-16 Brake Link Arm, Brake Change Arm

17. Half Loading Arm (Fig. 7-17)
 1) Remove the cassette loading mechanism. (See item 1 in the section on cassette loading mechanism removal)
 2) Remove the washer and pull it out upward.
 * Hook the bottom of the spring under the half loading arm to the take-up guide pole and the top to the stopper of the half loading arm.

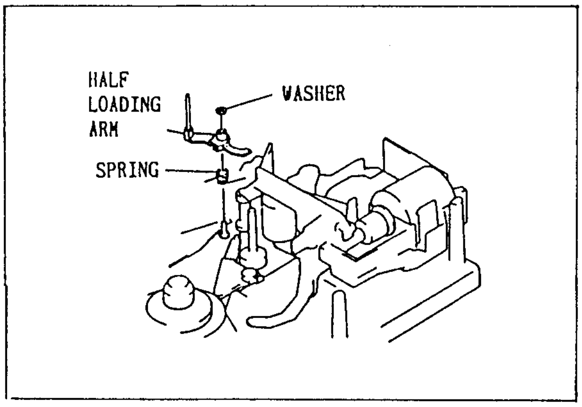

HALF LOADING ARM
WASHER
SPRING

Fig. 7-17 Half Loading Arm

18. Relay Arm (Fig. 7-18)
 1) Remove the cassette loading mechanism. (See item 1 in the section on cassette loading mechanism removal)
 2) Remove the half loading arm. (See item 17)
 3) Release one (1) tab in the direction of the arrow and remove the relay arm.

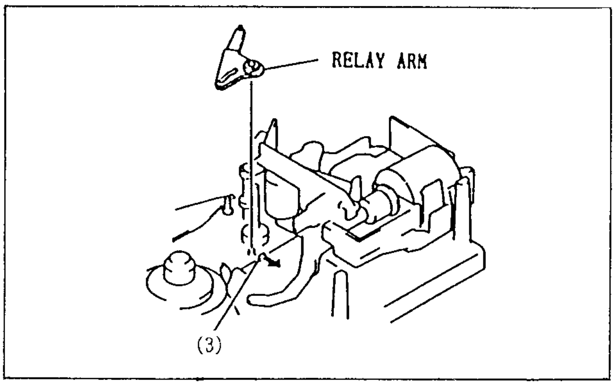


Fig. 7-18 Relay Arm

19. Load Bracket Assembly (Fig. 7-19)
 1) Remove the take-up reel disk. (See item 10)
 2) Remove the pressure roller Assembly (See item 11)
 3) Remove the loading motor block assembly. (See item 15)
 4) Remove the brake link arm. (See item 16)
 5) Remove one (1) screw, pull out the boss of the loading slide gear from the hole in the lift arm and lift up the load bracket assembly.

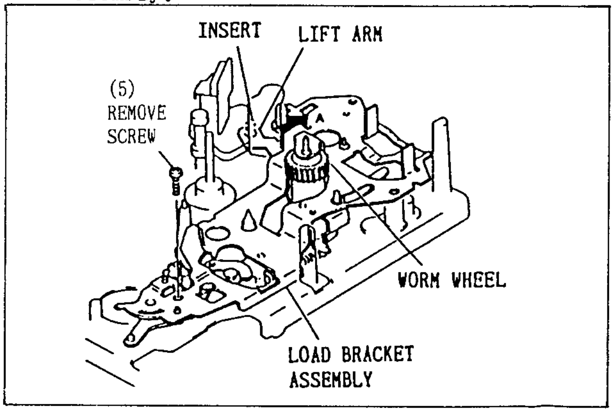

INSERT
LIFT ARM
(5) REMOVE SCREW
WORM WHEEL
LOAD BRACKET ASSEMBLY

Fig. 7-19 Load Bracket

* Components in items 20 ~ 34 are described as if the load bracket assembly has already been removed. (See item 19)

20. Brake Operation Arm (Fig. 7-20)

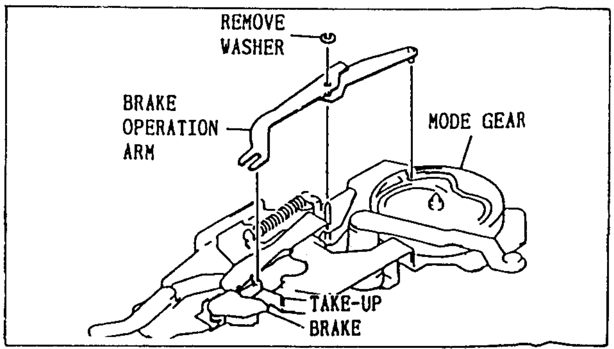

REMOVE WASHER
BRAKE OPERATION ARM
MODE GEAR
TAKE-UP BRAKE

Fig. 7-20 Brake Operation Arm

1) Remove the washer and pull out the brake operation arm.

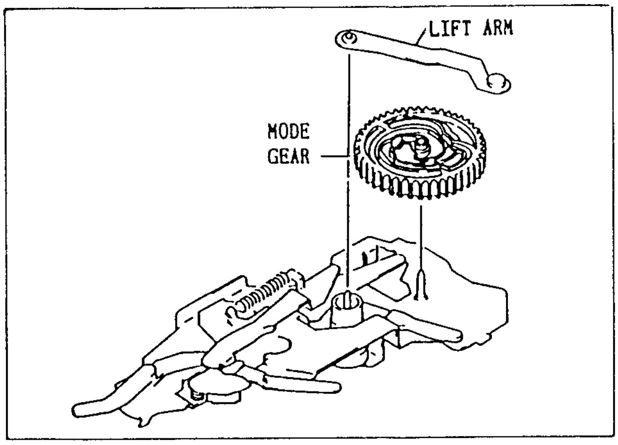
[Caution on reinstallation]

* Check that the boss (A) of the brake operation arm is inserted into the groove in the mode gear, and boss (B) of the take-up brake is inserted into the groove in the brake operation arm.

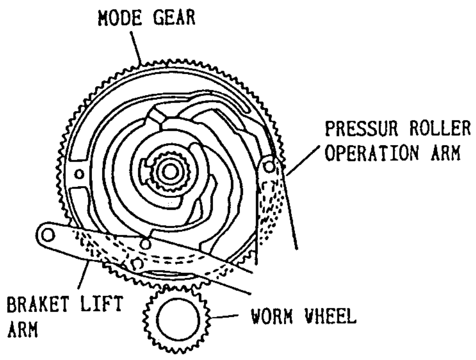
21. Mode Gear (Fig. 7-21A)
 1) Remove the brake operation arm. (See item 20)
 2) Remove the lift arm.
 3) Pull out the mode gear.

[Caution on reinstallation]

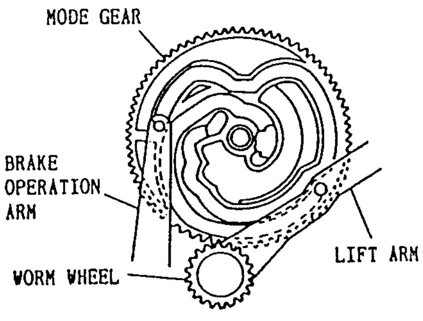
* Check that the bosses of the levers are inserted into the specified grooves in the mode gear.


LIFT ARM
MODE GEAR

[Fig. 7-21A]


MODE GEAR
PRESSUR ROLLER OPERATION ARM
BRAKET LIFT ARM
WORM WHEEL

[TOP VIEW]


MODE GEAR
BRAKE OPERATION ARM
LIFT ARM
WORM WHEEL

[BOTTOM VIEW]

Fig. 7-21 Mode Gear

22. Worm Wheel (Fig. 7-22)
 1) Remove the brake operation arm. (See item 20)
 2) Remove the lift arm.
 3) Remove the mode gear. (See item 21)
 4) Pull out the worm wheel.

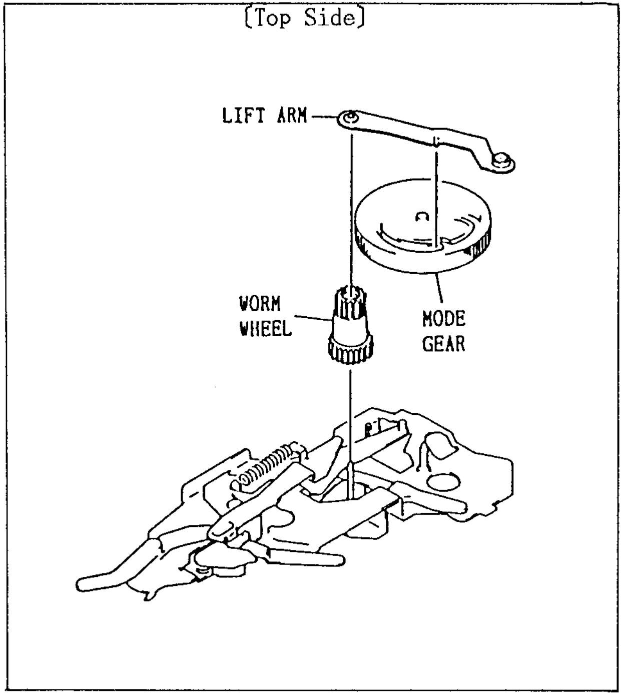

[Top Side]
LIFT ARM
WORM WHEEL
MODE GEAR

Fig. 7-22 Worm Wheel

23. Take-up Brake Assembly (Fig. 7-23)
 1) Remove the brake operation arm. (See item 20)
 2) Release one (1) tab and remove the take-up brake assembly.

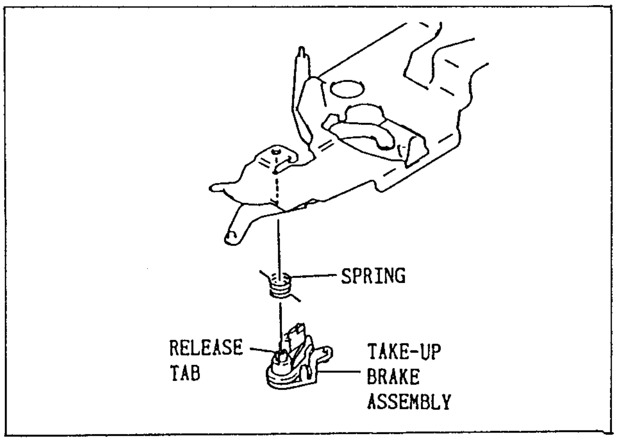

SPRING
RELEASE TAB
TAKE-UP BRAKE ASSEMBLY

Fig. 7-23 Take-up Brake

24. Pressure Roller Operation Arm, Mode Change Arm (Fig. 7-24)
 1) Remove the brake operation arm. (See item 20)
 2) Remove the mode gear. (See item 21)
 3) Remove the spring between the pressure roller operation arm and load bracket assembly.
 4) Pull out the pressure roller operation arm.
 5) Release one (1) tab and remove the mode change arm.

[Caution on reinstallation]

* Check that the boss of the pressure roller operation arm is inserted between the pressure roller drive lever and the rise of the load bracket assembly.

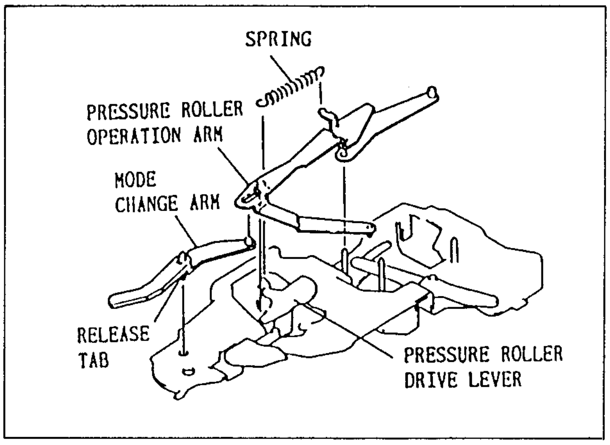

SPRING
PRESSURE ROLLER
OPERATION ARM
MODE
CHANGE ARM
RELEASE
TAB
PRESSURE ROLLER
DRIVE LEVER

Fig. 7-24 Pressure Roller Operation Arm,
Mode Change Arm

25. Brake Lift Arm (Fig. 7-25)
 1) Remove the brake operation arm. (See item 20)
 2) Remove the mode gear. (See item 21)
 3) Remove the pressure roller operation arm. (See item 24)
 4) Pull out the brake lift arm.

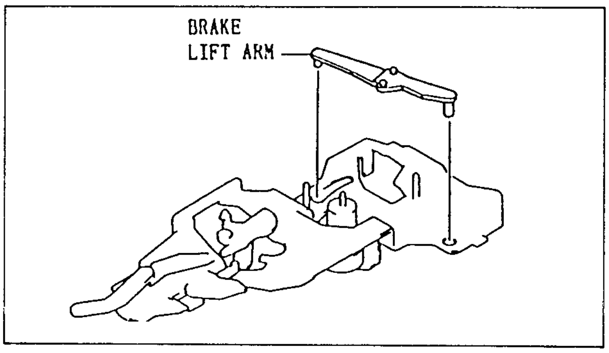

BRAKE
LIFT ARM

Fig. 7-25 Brake Lift Arm

26. FS Brake Arm (Fig. 7-26)
 1) Remove the cassette loading mechanism. (See item 1 in the section on cassette loading mechanism removal)
 2) Remove the slider block assembly. (See item 6)
 3) Remove the take-up reel disk. (See item 10)
 4) Remove the spring between the FS brake arm and mechanism chassis.
 5) Release one (1) tab and pull out the FS brake arm.

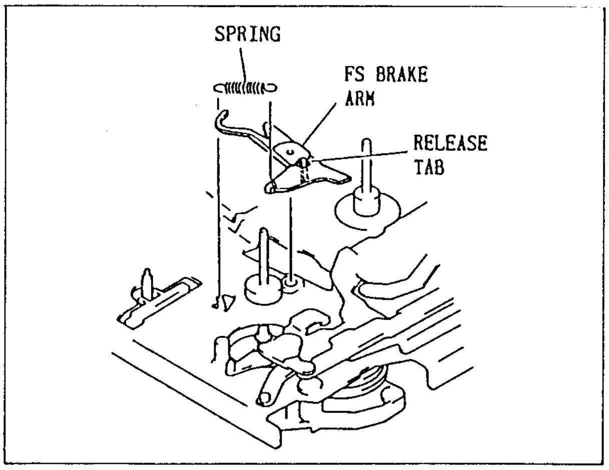

SPRING
FS BRAKE
ARM
RELEASE
TAB

Fig. 7-26 FS Brake Arm

27. Cylinder Motor Base (Fig. 7-27)
 1) Remove the cassette loading mechanism. (See item 1 in the section on cassette loading mechanism removal)
 2) Remove the cylinder motor assembly. (See item 3)
 3) Remove the tension arm and tension band. (See item 7)
 4) Remove three (3) screws and take out the cylinder motor base.

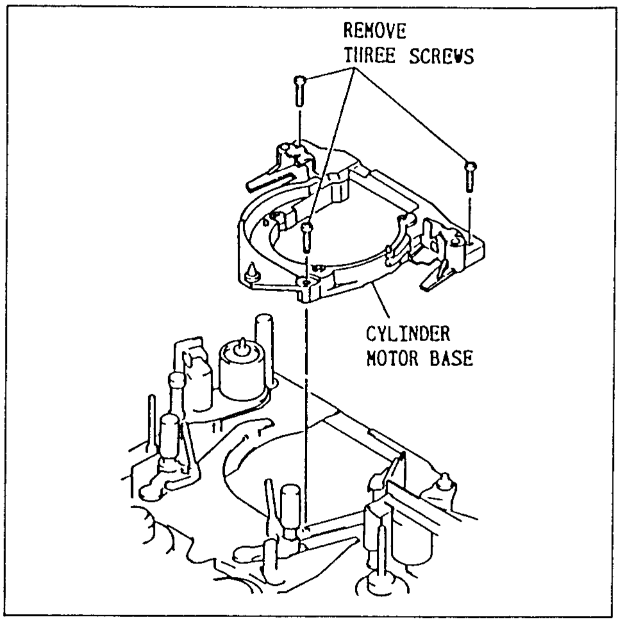
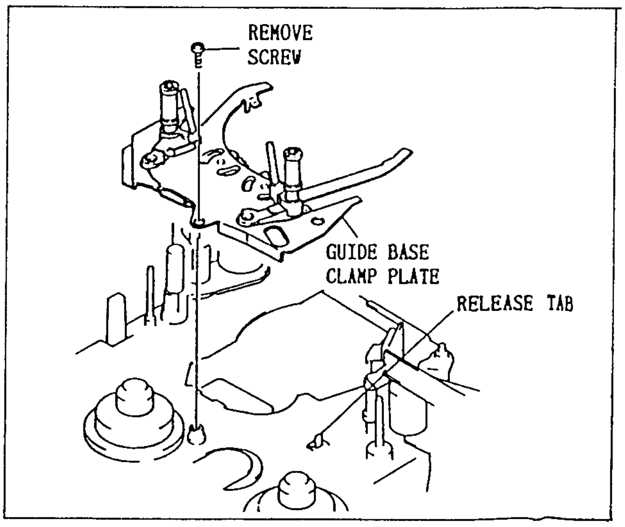

REMOVE
THREE SCREWS
CYLINDER
MOTOR BASE

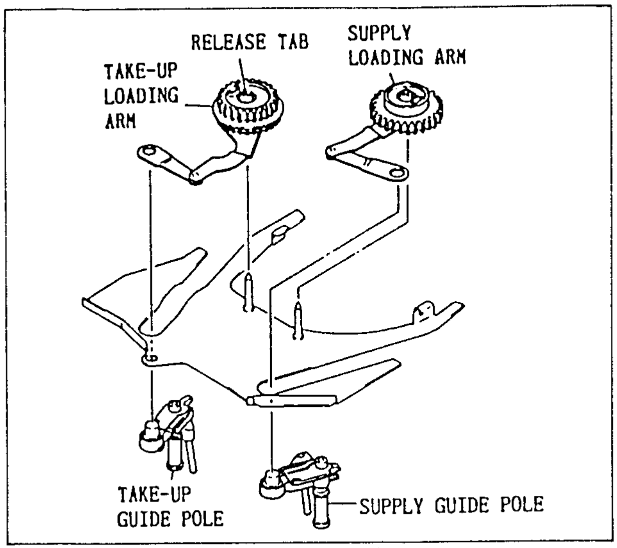
Fig. 7-27 Cylinder Motor Base

28. Supply/Take-up Loading Arms (Fig. 7-28-1)
 1) Remove the cylinder motor base. (See item 27)
 2) Remove one (1) screw.
 3) Release one (1) tab and remove the guide base clamp plate with the supply/take-up guide rollers assembled on it.
 4) Release one (1) tab and remove the take-up loading arm. (Fig. 7-28-2)
 5) Remove the supply loading arm.

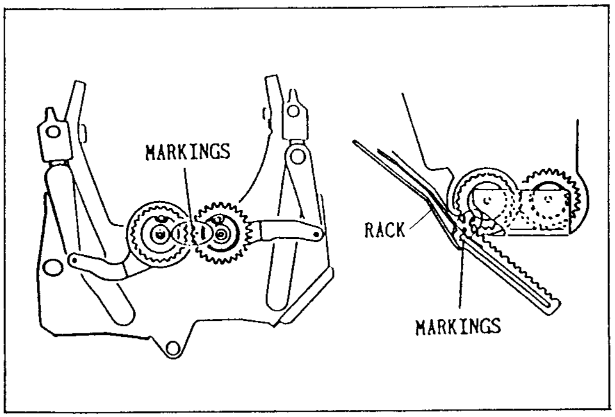
〔Caution on reinstallation〕
 * Align the markings on each gear. (Fig. 7-28-3)


REMOVE
SCREW
GUIDE BASE
CLAMP PLATE
RELEASE TAB

〔Fig. 7-28-1〕


RELEASE TAB
SUPPLY LOADING ARM
TAKE-UP LOADING ARM
TAKE-UP GUIDE POLE
SUPPLY GUIDE POLE

[Fig. 7-28-2]


MARKINGS
RACK
MARKINGS

[Fig. 7-28-3]

Fig. 7-28 Supply/Take-up Loading Arms

29. Take-up Pulley (Fig. 7-29)
   1) Remove the bottom cover. (See item 3 in the section on case removal)
   2) Remove the reel belt.
   3) Remove the washer and pull out the take-up pulley.

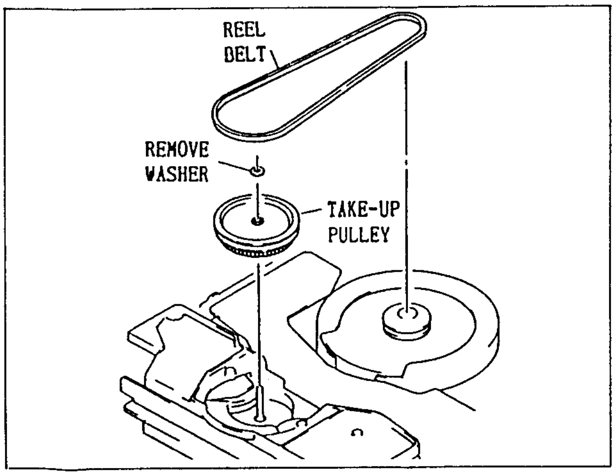

REEL BELT
REMOVE WASHER
TAKE-UP PULLEY

Fig. 7-29 Take-up Pulley

30. Clutch Gear (Fig. 7-30)
   1) Remove the cassette loading mechanism. (See item 1 in the section on cassette loading mechanism removal)
   2) Remove the slider block assembly. (See item 6)
   3) Remove the reel drive idler (See item 8)
   4) Remove the reel belt.
   5) Remove three (3) screws and take out the clutch gear assembly. Take care that the take-up gear is removed at this time.

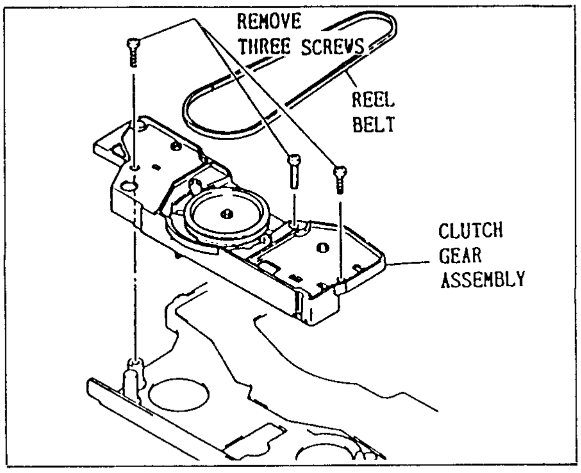

REMOVE THREE SCREWS
REEL BELT
CLUTCH GEAR ASSEMBLY

Fig. 7-30 Clutch Gear

31. Take-up Gear (Fig. 7-31)
   1) Remove the cassette loading mechanism. (See item 1 in the section on cassette loading mechanism removal)
   2) Remove the slider block assembly. (See item 6)
   3) Remove the reel drive idler. (See item 8)
   4) Remove the clutch gear assembly. (See item 29)
   5) Remove the washer and pull out the take-up gear.

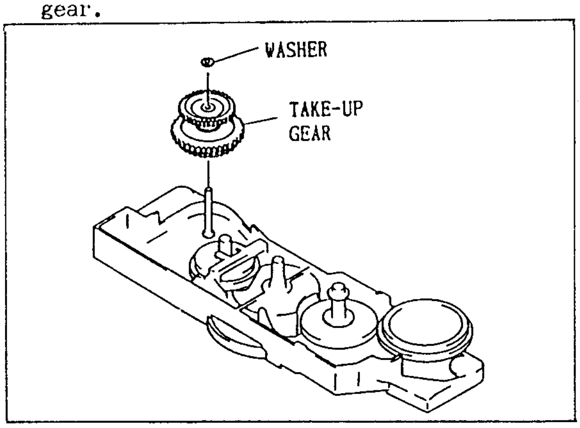

WASHER
TAKE-UP GEAR

Fig. 7-31 Take-up Gear

32. Change Arm, Change Gear (Fig. 7-32)
   1) Remove the cassette loading mechanism. (See item 1 in the section on cassette loading mechanism)
   2) Remove the slider block. (See item 6)
   3) Remove the reel drive gear. (See item 8)
   4) Remove the clutch gear. (See item 30)
   5) Remove the take-up gear. (See item 31)
   6) Release one (1) tab and remove the spring of the change lever.
   7) Release two (2) tabs and remove the change arm.
   8) Remove the washer and pull out the change gear.

[Caution on reinstallaion]

* Check that the spring and washer are put on as shown in the figure.

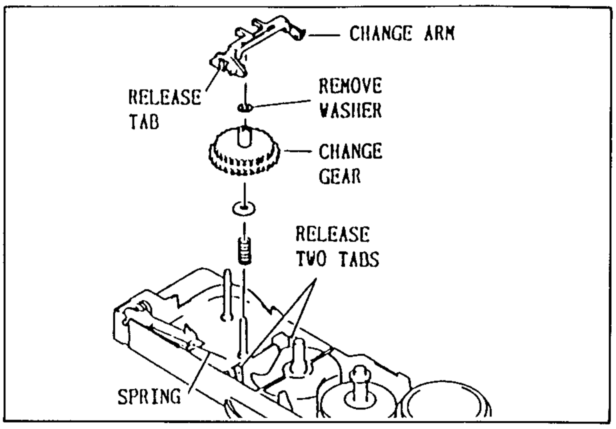

CHANGE ARM
RELEASE TAB
REMOVE WASHER
CHANGE GEAR
RELEASE TWO TABS
SPRING

Fig. 7-32 Change Arm, Change Gear

33. Relay Gear (Fig. 7-33)
 1) Remove the cassette loading mechanism. (See item 1 in the section on cassette loading mechanism removal)
 2) Remove the slider block assembly. (See item 6)
 3) Remove the reel drive idler. (See item 8)
 4) Remove the clutch gear assembly. (See item 30)
 5) Release one (1) tab and remove the relay gear.

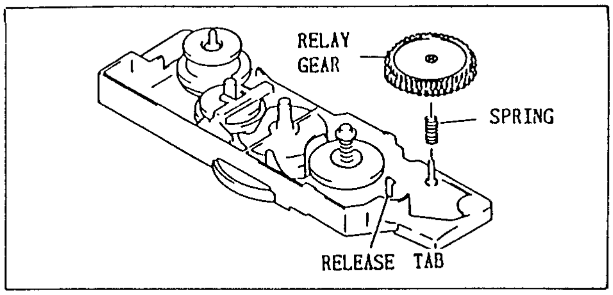

RELAY GEAR
SPRING
RELEASE TAB

Fig. 7-33 Relay Gear

34. FL Change Gear, FL Change Lever (Fig. 7-34)
 1) Remove the cassette loading mechanism. (See item 1 in the section on cassette loading mechanism removal)
 2) Remove the slider block assembly.(See item 6)
 3) Remove the reel drive idler. (See item 8)
 4) Remove the clutch gear assembly. (See item 30)
 5) Remove the cap, spring and washer, and pull out the FL change gear.
 6) Release two (2) tabs and remove the FL change lever.

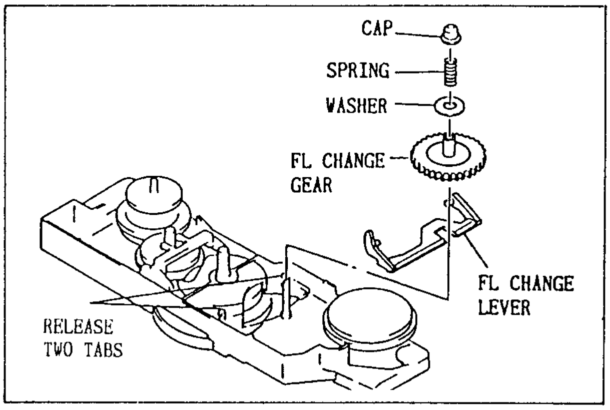

CAP
SPRING
WASHER
FL CHANGE GEAR
FL CHANGE LEVER
RELEASE TWO TABS

Fig. 7-34 FL Change Gear, FL Change Lever

ELECTRIC CIRCUIT ADJUSTMENT

Test equipment and tapes necessary for adjustment.

1) Dual-trace oscilloscope
2) Colour bar generator PAL/SECAM
3) VTVM
4) DC voltmeter
5) Frequency counter
6) Monitor TV
7) Alignment tape
8) Hi-Fi alignment tape
9) Blank tape

Cautions on adjustments

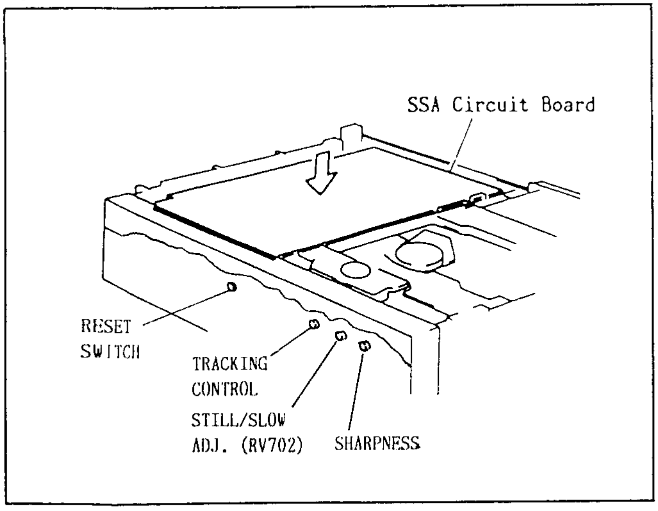
1) If there are no special instructions, the following conditions apply:
   - ○ Oscilloscope probe: 10:1
   - ○ Oscilloscope synchronization: Auto-Sync
   - ○ Tracking control: centre click.
2) When making more than one adjustment, make adjustments in the order listed.

Resetting microprocessors

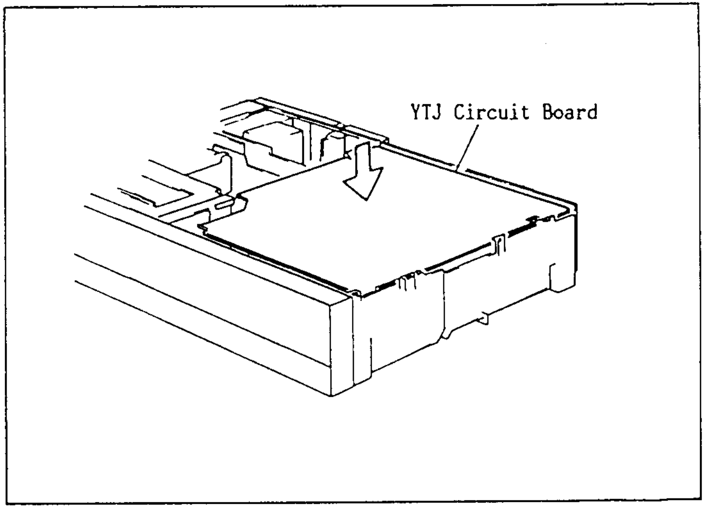
All microprocessors installed in the unit will be reset once the AC power lead is removed from the wall socket. However, the timer microprocessor is not reset for about 5 minutes because it is backed up by the backup circuit. Operate S751 on the timer circuit board to reset it.

Servicing Positions

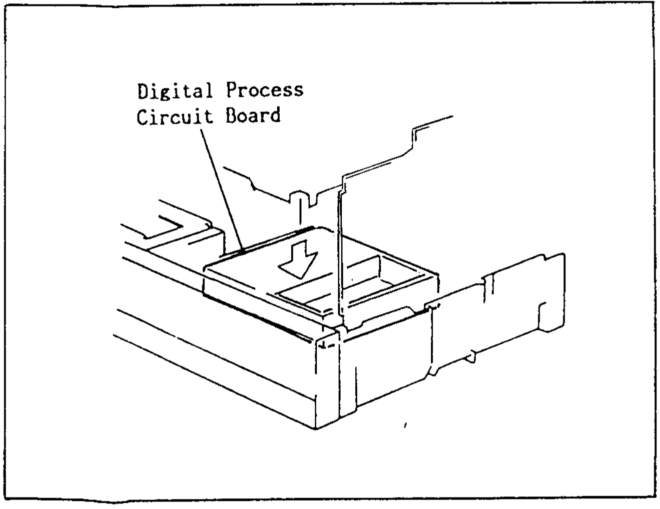
1. SSA Circuit Board


SSA Circuit Board
RESET SWITCH
TRACKING CONTROL
STILL/SLOW ADJ. (RV702)
SHARPNESS

2. YTJ Circuit Board


YTJ Circuit Board

3. Digital Process Circuit Board


Digital Process Circuit Board

COMPONENT LOCATIONS ON CIRCUIT BOARD

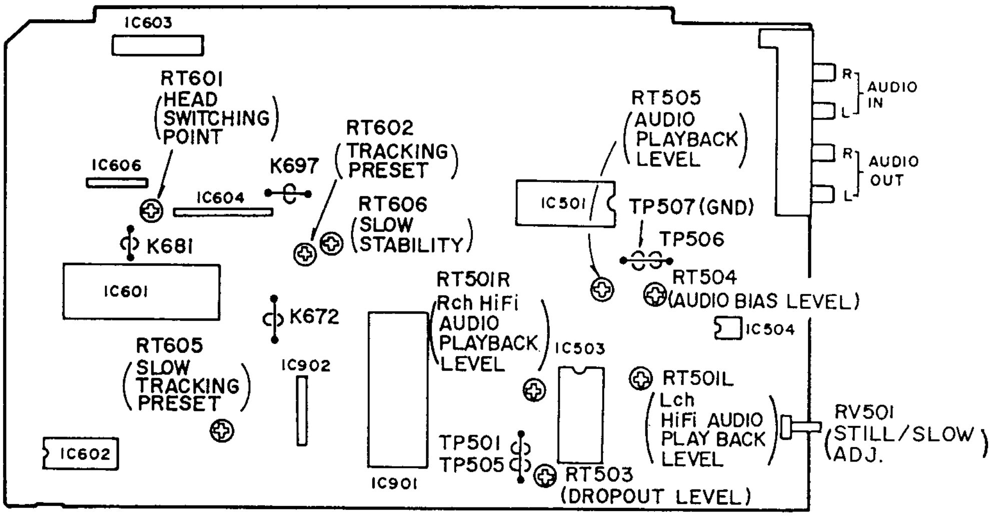
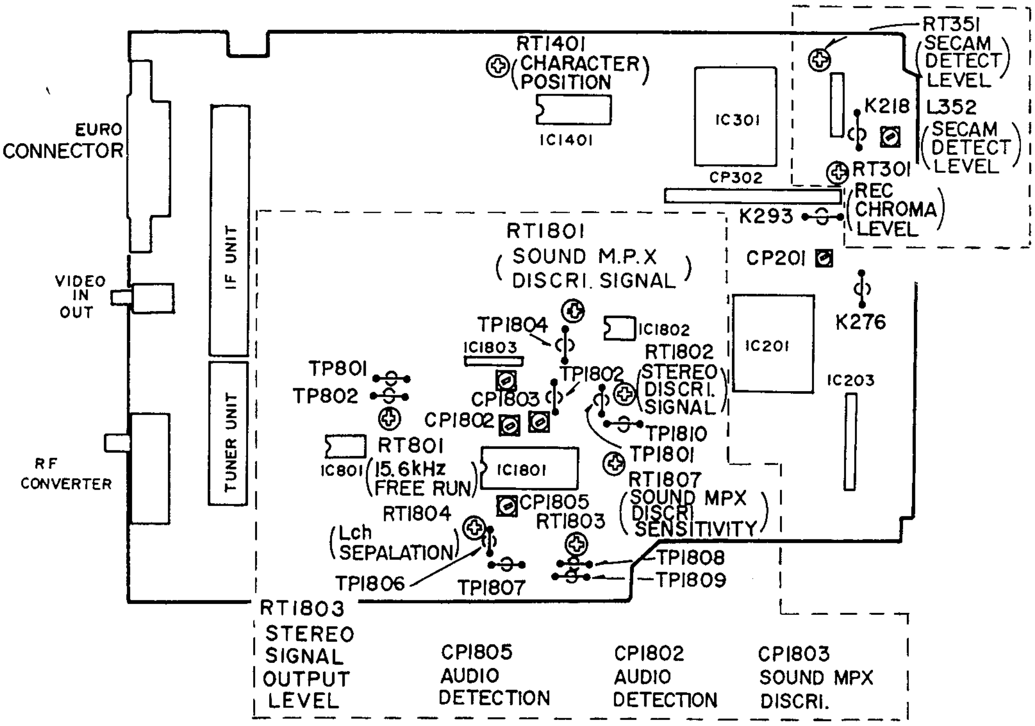

IC603
RT601 (HEAD SWITCHING POINT)
IC606
IC604
K697
RT602 (TRACKING PRESET)
RT606 (SLOW STABILITY)
K681
IC601
K672
RT605 (SLOW TRACKING PRESET)
IC902
IC602
IC901
RT501R (Rch HiFi AUDIO PLAYBACK LEVEL)
IC503
TP501
TP505
RT503 (DROPOUT LEVEL)
RT505 (AUDIO PLAYBACK LEVEL)
IC501
TP507(GND)
TP506
RT504 (AUDIO BIAS LEVEL)
IC504
RT501L (Lch HiFi AUDIO PLAY BACK LEVEL)
RV501 (STILL/SLOW ADJ.)
R L AUDIO IN
R L AUDIO OUT

Fig. 1 Components on SSA Circuit Board
(Solder Side)


RT1401 (CHARACTER POSITION)
IC1401
IC301
CP302
RT351 (SECAM DETECT LEVEL)
K218
L352 (SECAM DETECT LEVEL)
RT301 (REC CHROMA LEVEL)
K293
CP201
K276
IC201
IC203
EURO CONNECTOR
VIDEO IN OUT
RF CONVERTER
IF UNIT
TUNER UNIT
RT1801 (SOUND M.P.X DISCRI. SIGNAL)
TP1804
IC1802
IC1803
RT1802 (STEREO DISCRI. SIGNAL)
TP801
TP802
TP1802
CP1803
CP1802
TP1810
TP1801
RT801 (15.6kHz FREE RUN)
IC801
IC1801
RT1807 (SOUND MPX DISCRI SENSITIVITY)
CP1805
RT1804 (Lch SEPALATION)
RT1803
TP1808
TP1809
TP1806
TP1807
RT1803 STEREO SIGNAL OUTPUT LEVEL
CP1805 AUDIO DETECTION
CP1802 AUDIO DETECTION
CP1803 SOUND MPX DISCRI.

Attention: ⬚ For (WG/AEP)

Fig. 2 Components on YTJ Circuit Board
(Solder Side)

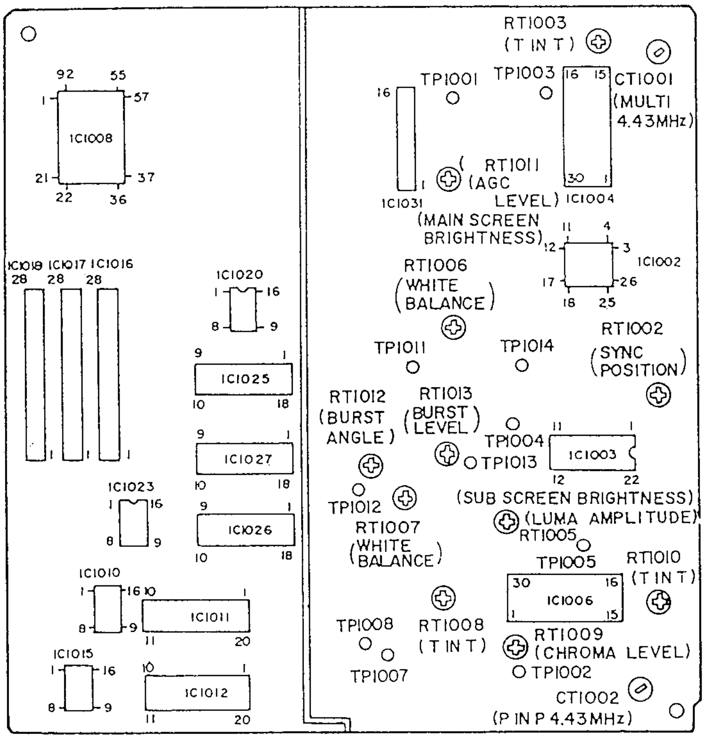

RT1003
(TINT)
CT1001
(MULTI
4.43MHz)
TP1001
TP1003
IC1031
RT1011
(AGC
LEVEL)
IC1004
(MAIN SCREEN
BRIGHTNESS)
IC1002
IC1008
IC1018
IC1017
IC1016
IC1020
RT1006
(WHITE
BALANCE)
TP1011
TP1014
RT1002
(SYNC
POSITION)
IC1025
IC1027
IC1026
RT1012
(BURST
ANGLE)
RT1013
(BURST
LEVEL)
TP1004
TP1013
IC1003
IC1023
TP1012
RT1007
(WHITE
BALANCE)
(SUB SCREEN BRIGHTNESS)
(LUMA AMPLITUDE)
RT1005
TP1005
RT1010
(TINT)
IC1010
IC1011
IC1006
TP1008
RT1008
(TINT)
RT1009
(CHROMA LEVEL)
TP1007
TP1002
IC1015
IC1012
CT1002
(PINP 4.43MHz)

Fig. 3 Components on Digital Process Circuit Board
(Components Side)

1. SERVO CIRCUIT ADJUSTMENTS

1.Head Switching Point Adjustment

Purpose of adjustment and fault occurring if incomplete

Purpose: Set the video head switching point to almost the centre where the CH-1 and CH-2 envelopes overlap each other during playback.

Fault: ○The vertical sync signal is degraded and vertical jitter occurs.
○Switching noise occurs in lower part of picture.

Test Equipment/Jigs	Test Equipment Connection Points	VTR State	Adjustment Point
• Oscilloscope (Oscilloscope Settings) •Set sync slope switch to“-” •Trigger with CH2	• CH-1: Video out • CH-2: K681 (SW25Hz)	• Play alignment tape (Stairsteps Section)	• RT601 (HEAD SWITCHING POINT)
• Alignment tape (Parts No.H7099052H)			

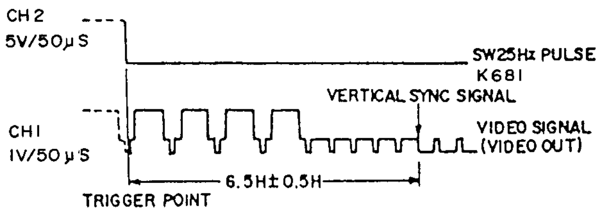
Adjustment Procedure

Vertical sync signal:
6.5H±0.5H from trailing edge(trigger point) of SW25Hz pulse.

After this adjustment is completed, check the REC TIMING pulse as follows.

1. Load a blank tape and set the VTR to the record mode.
2. Check that the REC TIMING pulse is between 5H and 8H.
3. If the REC TIMING pulse is below 5H, remove R692 1.5MΩ.

Waveforms


CH2
5V/50μS
SW25Hz PULSE
K681
VERTICAL SYNC SIGNAL
CH1
1V/50μS
VIDEO SIGNAL
(VIDEO OUT)
6.5H±0.5H
TRIGGER POINT

2. Tracking Preset Adjustment

Purpose of adjustment and fault occurring if incomplete

Purpose: Optimize tracking when playing back a tape recorded by this unit.

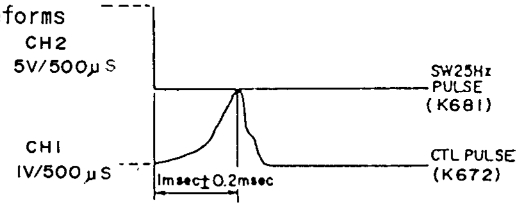
Fault: ○Noise occurs even with tracking control centred.
○Noise cannot be removed by turning the tracking control.

Test Equipment/Jigs	Test Equipment Connection Points	VTR State	Adjustment Point
• Oscilloscope (Settings) •Set sync slope switch to"-" •Trigger with CH-2	• CH-1: K672 (CTL PULSE) • CH-2: K681 (SW25Hz)	• Record colour bar signal and play it back with this unit. • Tracking control: Centre click position	• RT602 (TRACKING PRESET)
• Colour bar generator (or receive TV programme)	• Video in		
• Blank tape			

Adjustment Procedure

1) Tracking control: Centre click
2) It is 1 msec ± 0.2 msec from the fall of SW25Hz to the peak of CTL pulse.

Waveforms



3. Slow Tracking Preset Adjustment

Purpose of adjustment and fault occurring if incomplete

Purpose: Optimize tracking during slow play.

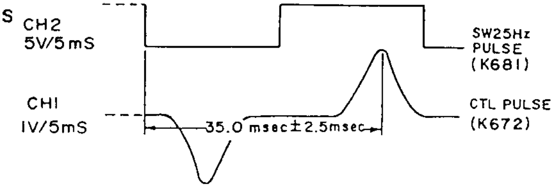
Fault: A noise bar appears in the picture during slow play.

Test Equipment/Jigs	Test Equipment Connection Points	VTR State	Adjustment Point
• Oscilloscope (Settings) Set sync slope switch to"-"•Trigger with CH-2	• CH-1: K672(CTL PULSE) • CH-2: K681(SW25Hz)	• Record colour bar signal and play it back with this unit in slow mode. • Turn on RESET switch S751 (on the timer circuit board) to set the slow tracking to the centre electrically.	• RT605 (SLOW TRACKING PRESET)
• Colour bar generator (or receive TV programme)	• Video in		
• Blank tape			

Adujustment Procedure

It is 35.0msec±2.5msec from the fall of SW25Hz to the peak of CTL pulse.

Waveforms



4. Slow Stability Adjustment

Purpose of adjustment and fault occurring if incomplete

Purpose: Suppress the horizontal jitter in the picture during slow play.

Fault: Horizontal jitter occurs in the picture during slow play.

Test Equipment/Jigs	Test Equipment Connection Points	VTR State	Adjustment Point
• Monitor TV	• RF out	• Record colour bar signal and play it back with this unit in slow mode. • Turn on RESET switch S751 (on the timer circuit board) to set the slow tracking to the centre electrically.	• RT606 (SLOW STABILITY)
• Colour bar generator (or receive TV programme)	• Video in		
• Blank tape			

Adujustment Procedure

Minimize horizontal jitter in the picture.

5. Vert. Sync. Adjustment

Purpose of adjustment and fault occurring if incomplete

Purpose: Change timing for adding vertical drive pulse and suppress vertical jitter in picture during trick play.

Fault: Vertical jitter during trick play.

Test Equipment/Jigs	Test Equipment Connection Points	VTR State	Adjustment Point
• Monitor TV	• RF out	• Record colour bar signal and play it back with this unit in STILL mode.	• RV501 (STILL/SLOW ADJ)
• Colour bar generator (or receive TV programme)	• Video in		
• Blank tape			

Adjustment Procedure

Suppress vertical jitter in picture.

2. Y/CHROMA CIRCUIT ADJUSTMENTS

1. Rec Chroma Level Adjustment

Purpose of adjustment and fault occurring if incomplete

Purpose: Set the chroma record level to an optimum value.

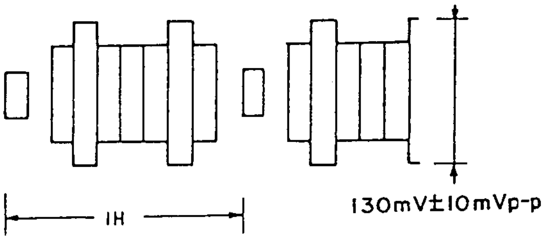
Fault: Diamond beats occur in the played back picture or colouring becomes poor.

Test Equipment/Jigs	Test Equipment Connection Points	VTR State	Adjustment Point
• Oscilloscope	• K293	• E-E mode	• RT301 (REC CHROMA LEVEL)
• Colour bar generator	• Video in		

Adjustment Procedure

The oscilloscope reads 130mV±10mVp-p

Waveforms


IH
130mV±10mVp-p

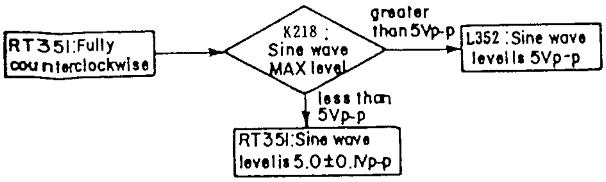
2. Secam Detect Level Adjustment

Purpose of adjustment and fault occurring if incomplete

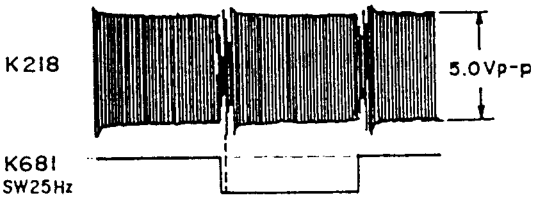
Purpose: Set the Secam detect level to the specified value.

Test Equipment/Jigs	Test Equipment Connection Points	VTR State	Adjustment Points
• Oscilloscope	• CH-1: K218 • CH-2: K681 (SW25Hz)	• REC mode	• RT351
• SECAM colour bar generator	• Video in		• L352 (SECAM DETECT LEVEL)
Blank tape			

Adjustment Procedure


RT351:Fully counterclockwise
K218 : Sine wave MAX level
greater than 5Vp-p
L352 :Sine wave level is 5Vp-p
less than 5Vp-p
RT351:Sine wave level is 5.0±0.1Vp-p

Waveforms


K218
5.0Vp-p
K681
SW25Hz

3. AUDIO CIRCUIT ADJUSTMENTS

1. Hi-Fi Audio Playback Level Adjustment

Purpose of adjustment and fault occurring if incomplete
Purpose: To set the audio playback level to the specified value.
Fault: The proper sound volume cannot be obtained.

Test Equipment/Jigs	Test Equipment Connection Points	VTR State	Adjustment Points
• VTVM	• AUDIO OUT L jack when adjusting RT501L • AUDIO OUT R jack when adjusting RT501L	• Play Hi-Fi alignment tape	• RT501L(L-CH) • RT501R(R-CH) (Hi-Fi AUDIO PLAYBACK LEVEL)
• Hi-Fi alignment tape (Parts No.H7099175H)			

Adjustment Procedure	[Caution]
(Same for RT501L and RT501R) The VTVM reads -4.8±0.1dBs.	1) When connecting the pin plugs for measurement, connect them to both the left and right channels. 2) Perform the dropout level adjustment after this adjustment is completed.

2. Dropout Level Adjustment

Purpose of adjustment and fault occurring if incomplete
Purpose: To set the dropout detection level and muting level of FM audio signal.
Fault: ○Noise occurs even with a minute dropout of envelope.
○Hi-Fi audio is not switched to linear audio when an envelope is missed.

Test Equipment/Jigs	Test Equipment Connection Point	VTR State	Adjustment Point
• DC voltmeter	• TP501	• Play alignment tape.	• RT402 (DROPOUT LEVEL)
• Alignment tape (Parts No.H7099052H)			

Adjustment Procedure
1) Short-circuit TP505 and ground.
2) The DC voltmeter reads 2.5±0.1V DC.
3) Release the short-circuit.

3. Audio Playback Level Adjustment

Purpose of adjustment and fault occurring if incomplete
Purpose: To set the audio playback level to the specified value.
Fault: The proper sound volume cannot be obtained.

Test Equipment/Jigs	Test Equipment Connection Points	VTR State	Adjustment Point
• VTVM	• AUDIO OUT L jack (US Pin jack)	• Play alignment tape	• RT505 (AUDIO PLAYBACK LEVEL)
• Alignment tape (Parts NO.H7099052H)			

Adjustment Procedure
The VTVM reads -11.0±0.5dBs.

4. Audio Bias Level Adjustment

Purpose of adjustment and fault occurring if incomplete

Purpose: To set audio bias during recording to optimum level.

Fault: ○Bias too high: High-frequency response deteriorates.
○Bias too low: Sound tends to be distorted.

Test Equipment/Jig	Test Equipment Connection Points	VTR State	Adjustment Point
• VTVM	• TP506(BIAS) • TP507(BIAS GND)	• Non-signal recording	• RT504 (AUDIO BIAS LEVEL)

Adjustment Procedure

The VTVM reads 2.5±0.1mV.

4. MULTIPLEX DEMODULATOR CIRCUIT ADJUSTMENTS (For WG, AEP)

Note: 1. Set all the semi-variable resitors on the demodulator board to around the centre of their variable ranges.
2. Set the audio channel select switch to "MAIN+SUB".

1. Sound M.P.X.Discri Sensitivity Adjustment

Purpose of adjustment and fault occurring if incomplete

Purpose: Set the sound multiplex discrimination sensitivity to the specified value.

Fault: The sound multiplex discrimination sensitivity decreases and a malfunction occurs.

Test Equipment/Jigs	Test Equipment Connection Points	VTR State	Adjustment Point
• CR oscillator	• TP1801	• Stop mode (Disconnect the aerial cable from the VTR and detune the tuner.)	• RT1807 (SOUND M.P.X.DISCRI. SENSITIVITY)
• DC voltmeter • Frequency counter	• TP1810		

Adjustment Procedure

1) Apply a signal of 196Hz, 40mV to TP1801.
2) The DC voltmeter reads 6.10V±0.05V.

2. Audio Detection Adjustment

Purpose of adjustment and fault occurring if incomplete

Purpose: Optimize the audio detection level.

Fault: The audio level is low and sound is distorted.

Test Equipment/Jigs	Test Equipment Connection Points	VTR State	Adjustment Points
• Oscilloscope • Distortion meter	• TP1802 • TP1805	• Receive a bilingual broadcast	• CP1802 (AUDIO DETECTION) • CP1805 (AUDIO DETECTION)

Adjustment Procedure

Adjust CP1802 and CP1805 to maximize the output and fine adjust so the distortion is minimum.

3. Q.Signal Detection Adjustment

Purpose of adjustment and fault occurring if incomplete

Purpose: Set the Q.signal carrier level to the specified value.

Fault: The detection sensitivity becomes low.

Test Equipment/Jig	Test Equipment Connection Point	VTR State	Adjustment Point
• Oscilloscope	• TP1804	• Receive a bilingual broadcast	• CP1801 (Q.SIGNAL DET.)

Adujustment Procedure

AC Level: Maximize

4. Sound M.P.X.Discri Signal Adjustment

Purpose of adjustment and fault occurring if incomplete

Purpose: Set the sound multiplex Q. discrimination signal 274.1Hz to the specified value.

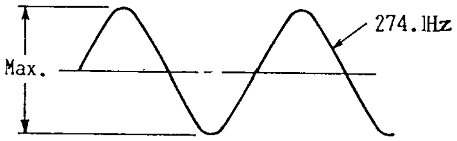
Fault: The sound multiplex sensitivity is defective or a malfunction occurs.

Test Equipment/Jig	Test Equipment Connection Point	VTR State	Adjustment Points
• Oscilloscope	• TP1801	• Receive a bilingual broadcast	• RT1801 (SOUND M.P.X. DISCRI) • CP1803 (SOUND M.P.X. DISCRI)

Adjustment Procedure

Adjust RT1801 and CP1803 to maximize the sound multiplex discrimination signal(274.1Hz)output.

Waveform



5. Stereo Discri Signal Adjustment

Purpose of adjustment and fault occurring if incomplete

Purpose: Set the stereo discrimination sensitivity to the specified value.

Fault: The stereo discrimination sensitivity becomes defective and a malfunction occurs.

Test Equipment/Jig	Test Equipment Connection Point	VTR State	Adjustment Point
• Oscilloscope	• TP1801	• Receive a stereo broadcast	• RT1802 (STEREO DISCRI. SIGNAL)

Adjustment Procedure

Adjust RT1802 to maximize the stereo discrimination signal (117.5Hz) output.

6. Stereo Signal Output Level Adjustment

Purpose of adjustment and fault occurring if incomplete

Purpose: Set the Rch signal to the specified value during stereo reception.

Fault: A level difference occurs between L and R channels.

Test Equipment/Jigs	Test Equipment Connection Points	VTR State	Adjustment Point
• Stereo signal generator	• Audio input	• Receive stereo signals (400Hz/30kHz)	• RT1803 (STEREO SIGNAL OUTPUT LEVEL)
• VTVM • Oscilloscope	• TP1808		

Adjustment Procedure

1) Set the MAIN+SUB select switch on the operation switch circuit board to "SUB" so only the Rch signal is output.
2) Adjust RT1803 so the output level is -9dBm± 0.5dBm(276±22mV).

7. Lch Separation Adjustment

Purpose of adjustment and fault occurring if incomplete

Purpose: Optimize the separation of stereo sound.

Fault: The separation of stereo sound becomes defective. (Leak of signal components from R to L channel)

Test Equipment/Jig	Test Equipment Connection Point	VTR State	Adjustment Point
• Oscilloscope	• TP1807	• Receive a stereo broadcast	• RT1804 (LCH SEPARATION)

Adjustment Procedure

1) Switch off the modulation of L-channel.
2) Adjust RT1804 to minimize the Rch signal output.

5. F.S TUNING CIRCUIT ADJUSTMENT (for WG, AEP)

1. 15.6kHz Free-Run Adjustment

Purpose of adjustment and fault occurring if incomplete

Purpose: To set the free-run frequency applied to the SYNC detection circuit in the channel select circuit to 15.6kHz±0.1kHz.

Fault: The sync signal detection does not work and correct tuning is not performed.

Test Equipment/Jig	Test Equipment Connection Points	VTR State	Adjustment Point
• Frequency counter	• TP802 • TP801(GND)	• Stop mode	• RT801 (15.6kHz FREE-RUN)

Adjustment Procedure

The counter reads 15.6kHz±0.1kHz

6. CHARACTER GENERATOR CIRCUIT ADJUSTMENT

1. Character Position Adjustment

Purpose of adjustment and fault occurring if incomplete

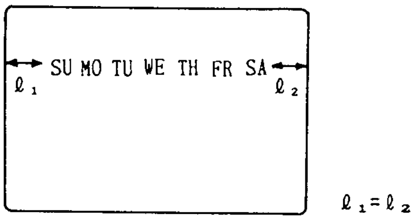
Purpose: To set the positions of characters displayed on the screen.

Fault: The character display position is drifted.

Test Equipment/Jigs	Test Equipment Connection Points	VTR State	Adjustment Point
• Monitor TV	• Check with monitor TV	• Receive colour bar signal (LINE IN) • OSD mode	• RT1401
• Colour bar generator	• VIDEO IN jack		

Adjustment Procedure

1) Operate the remote control to display the OSD menu and select the calendar.
2) RT1401: Equalize interval ℓ1 from the screen edge to S of SU (Sunday) and ℓ2 from the edge to A of SA (Saturday).



7. DIGITAL PROCESS ADJUSTMENTS

1. AGC Level Adjustment

Purpose of adjustment and fault occurring if incomplete

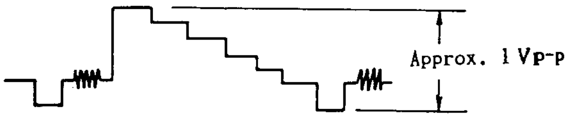
Purpose: Match the brightnesses of the main and sub screens in the P in P mode.

Fault: The brightnesses of the main and sub pictures are different.

Test Equipment/Jigs	Test Equipment Connection Points	VTR State	Adjustment Point
• Colour bar generator	• TP1001	• P in P mode (in EE mode)	• RT1011 (AGC LEVEL)
• Oscilloscope	• Video input		

Adjustment Procedure

Set the amplitude to approx. 1 Vp-p.



2. Sync Signal Position Adjustment

Purpose of adjustment and fault occurring if incomplete

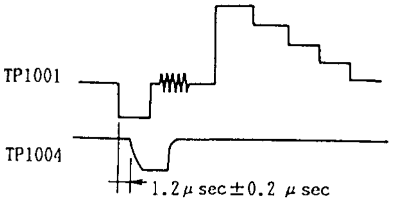
Purpose: Set the reference position for writing to the memory. / Set the reference position of the BGP (burst gate pulse).

Fault: The centre of the sub picture is drifted in the STOP MOTION and P in P modes. / Colouring is unstable.

Test Equipment/Jigs	Test Equipment Connection Points	VTR State	Adjustment Point
• Colour bar generator	• CH1: TP1001 • CH2: TP1004	• P in P mode (in EE mode)	• RT1102 (SYNC POSITION)
• Oscilloscope	• Video input		

Adjustment Procedure

Set the sync signal to the position 1.2±0.2μsec.



3. 4.43MHz Adjustment

Purpose of adjustment and fault occurring if incomplete

Purpose: Set the 4.43 MHz free-running frequency.

Fault: Colouring is unstable or the picture has no colour in the multi-strobe and P in P modes.

Test Equipment/Jigs	Test Equipment Connection Points	VTR State	Adjustment Points
• Colour bar generator	• Video input		• CT1001 (MULTI 4.43MHz)
• Frequency counter	• TP1003(MULTI)	• Multi-picture(in EE mode)	
	• TP1005(P IN P)	• P in P mode(in EE mode)	• CT1002 (P IN P 4.43MHz)

Adjustment Procedure

CT1001: The frequency counter reads 4433.62± 0.05 kHz in the multi-picture mode. (TP1003)

CT1002: The frequency counter reads 4433.62± 0.05 kHz in the P in P mode.(TP1005)

Note: Connect TP1002 to earth when adjusting CT1002(TP1005).

4. Luminance Signal Amplitude Adjustment

Purpose of adjustment and fault occurring if incomplete

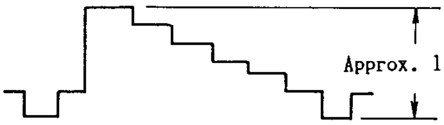
Purpose: Set the brightness of the sub screen in the P in P mode.

Fault: The brightnesses of the main and sub screens are different in the P in P mode.

Test Equipment/Jigs	Test Equipment Connection Points	VTR State	Adjustment Point
• Oscilloscope	• Video input	• P in P mode(in EE mode)	• RT1005 (LUMINACE AMPLITUDE)
• Colour bar generator	• TP1008		

Adjustment Procedure

Set the amplitude to approx. 1.0 Vp-p.



5. Tint Adjustment

Purpose of adjustment and fault occurring if incomplete

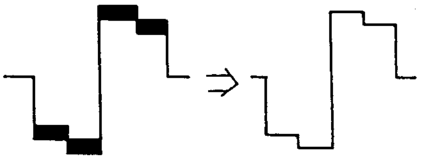
Purpose: Adjust the phase angle when a chroma signal is demodulated.

Fault: Flickering will occur in the sub screen in the P in P mode.

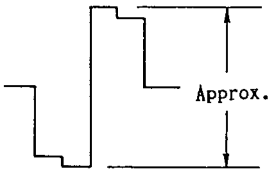
Test Equipment/Jigs	Test Equipment Connection Points	VTR State	Adjustment Points
• Oscilloscope	• Video input	• P in P mode(in EE mode)	• RT1010 (TINT) • RT1009 (CHROMA LEVEL)
• Colour bar generator	• TP1007		

Adjustment Procedure

RT1010: Adjust so the amplitude is not doubled.



RT1009: Set the amplitude to approx. 0.6 Vp-p.



6. Burst Level Adjustment

Purpose of adjustment and fault occurring if incomplete

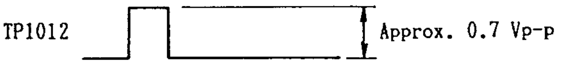
Purpose: Set the tint in the STOP MOTION mode.

Fault: The tints do not match in the STOP MOTION mode.

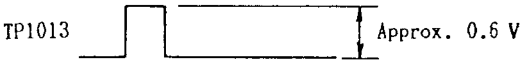
Test Equipment/Jigs	Test Equipment Connection Points	VTR State	Adjustment Point
• Colour bar generator	• Video input	• P in P mode(in EE mode)	• RT1012 (BURST ANGLE) • RT1013 (BURST LEVEL)
• Oscilloscope	• TP1012 • TP1013		

Adjustment Procedure

RT1012: Set the amplitude to approx. 0.7 Vp-p.



RT1013: Set the amplitude to approx. 0.6 Vp-p.



7. White Balance Adjustment

Purpose of adjustment and fault occurring if incomplete

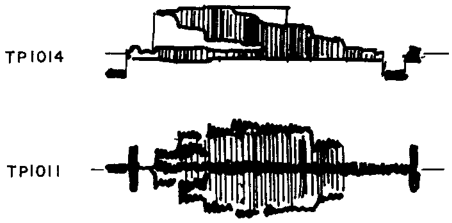
Purpose: Set the tints of the main and sub screens correctly in the P in P mode.

Fault: The tint of the sub screen is abnormal in the P in P mode.

Test Equipment/Jigs	Test Equipment Connection Points	VTR State	Adjustment Point
• Colour bar generator (50% white signal with burst and pilot)	• Video input	• STOP MOTION mode (in EE mode)	• RT1006 (WHITE BALANCE) • RT1007 (WHITE BALANCE)
• Oscilloscope (Trigger with CH2)	• CH1:TP1011 CH2:TP1014		

Adjustment Procedure

RT1006/RT1007: Minimize the white component in the chroma signal and adjust so the waveform on the right is obtained.



8. Main Screen Brightness Adjustment

Purpose of adjustment and fault occurring if incomplete

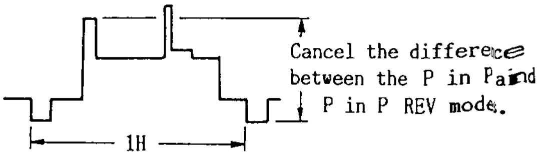
Purpose: Match the brightnesses of the main screen in the P in P and P in P REV. modes.

Fault: The brightness of the main screen changes in the P in P and P in P REV. modes.

Test Equipment/Jigs	Test Equipment Connection Points	VTR State	Adjustment Point
• Colour bar generator (50% white signal with burst and pilot)	• Video input	• P in P mode(in EE mode) • REV. P in P mode (in EE mode)	• RT1011 (MAIN SCREEN BRIGHTNESS)
• Oscilloscope	• TP1014		

Adjustment Procedure

Match the main screen level in the P in P REV mode with that in the P in P mode (any level of the sub screen)


Cancel the difference between the P in P and P in P REV mode.
1H

9. Sub Screen Brightness Adjustment

Purpose of adjustment and fault occurring if incomplete

Purpose: To adjust the brightness of the sub screen.

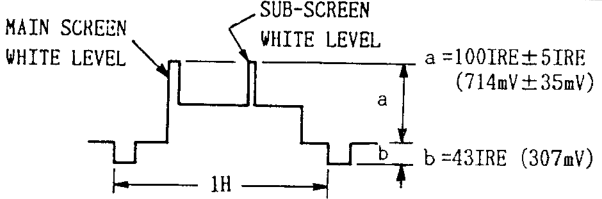
Fault: The brightnesses of the main and sub screens are different.

Test Equipment/Jigs	Test Equipment Connection Points	VTR State	Adjustment Point
· Colour bar generator (50% white signal with burst and pilot)	· Video input	· P in P mode(in EE mode)	· RT1005 (SUB SCREEN BRIGHTNESS)
· Oscilloscope	· TP1014		

Adjustment Procedure

Match the luminance levels of the main and sub screens.

White level: a =100±5 IRE (714mV±36mV)



10. Main/Sub Screen Tint Matching Adjustment

Purpose of adjustment and fault occurring if incomplete

Purpose: Match the tints of the main and sub screens in the P in P mode.

Fault: The tints of the main and sub screens do not match.

Test Equipment/Jigs	Test Equipment Connection Points	VTR State	Adjustment Points
· Colour bar generator	· Video input	· P in P mode(in EE mode)	· RT1003 (TINT) · RT1008 (TINT) · RT1009 (CHROMA LEVEL)
· Monitor TV	· Check with Monitor TV		

Adjustment Procedure

Adjust so that the tints of the main and sub screens are the same.

11. Burst Signal Adjustment

Purpose of adjustment and fault occurring if incomplete

Purpose: Set the angle and amplitude level of the burst signal.

Fault: The tints and colour saturations of the pictures are different in the EE and STOP MOTION modes.

Test Equipment/Jigs	Test Equipment Connection Points	VTR State	Adjustment Points
· Colour bar generator	· Video input	· E.E mode · STOP MOTION mode	· RT1012 (BURST ANGLE) · RT1013 (BURST LEVEL)
· Monitor TV	· Check with Monitor TV		

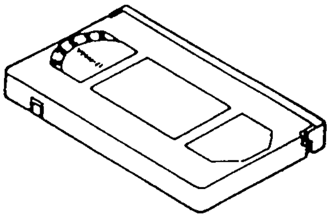
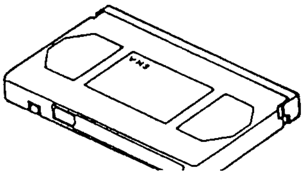
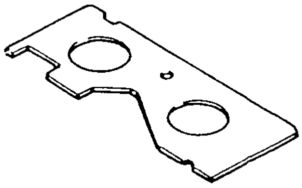
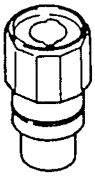
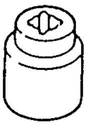
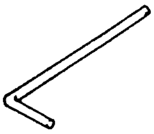
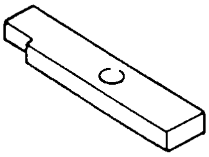
Adjustment Procedure

1) Alternate the EE mode and STOP MOTION mode repeatedly and match the tint in the STOP MOTION mode with that in the EE mode.

[Complete item 6 Burst Level Adjustment before performing this adjustment]

MECHANISM ADJUSTMENT

JIGS AND TAPES FOR ADJUSTMENT

1. Back Tension Meter Parts No.H7099004H 	2. Alignment Tape Parts No.H7099052H  Hi-Fi Alignment Tape Parts No. H7099175H	3. Master Plane Parts No.H7099279H 
4. Torque Gauge Parts No.H7099039H 	5. Torque Gauge Adaptor Parts No.H7099035H 	6. 0.9mm Hexagonal Wrench Parts No.H7099202H 1.5mm Hexagonal Wrench Parts No.7-700-736-05 
7. Reel Disk Height Jig Parts No.H7099038H 		

MECHANICAL PARTS ADJUSTMENT

1.Mechanism State Switch

Purpose: To detect the mechanism state correctly and prevent malfunctions.

Test equipment/jigs	Preparation for adjustment	State of VTR	Adjustment points
• Blank tape	——	• Eject mode (with the cassette ejected)	• Mechanism state switch • Mode gear

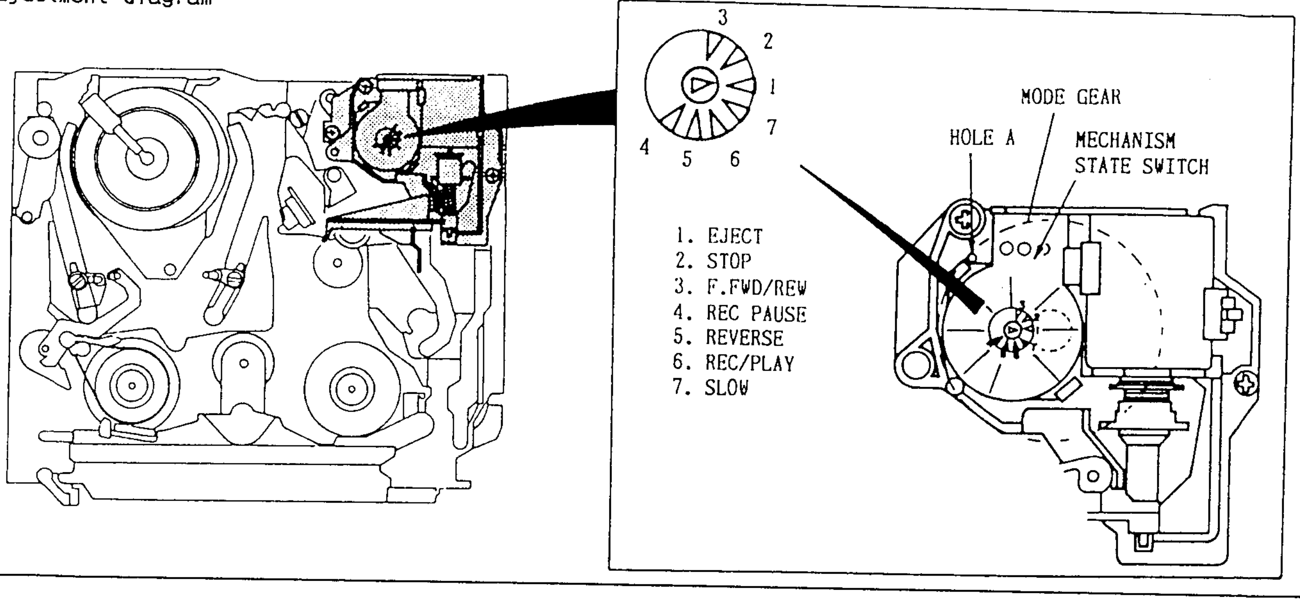
Adjustment procedure

1) Check that the arrow on the centre shaft of the mechanism state switch points to the arrow of mechanism mode indication number 1. Also check that hole (A) beside the mechanism state switch and the hole in the mode gear are aligned.

2) If the above alignments are not obtained, adjust as follows.
   1. Remove the mechanism state switch/loading motor assembly.
      “See item 5 in the section MAIN MECHANICAL COMPONENTS REMOVAL in CHAPTER 2”
   2. Move the mode gear to align the position of hole (A).
   3. Turn the gear on the back of the mechanism state switch so that the arrow on the centre shaft of the switch points to the arrow of mechanism mode indication number 1.
   4. Reinstall the mechanism state switch/loading motor assembly in the above condition.

3) Load a blank tape and perform various operations to check that loading and unloading are performed correctly.

Adjustment diagram


3
2
1
7
4
5
6
1. EJECT
2. STOP
3. F.FWD/REW
4. REC PAUSE
5. REVERSE
6. REC/PLAY
7. SLOW
MODE GEAR
HOLE A
MECHANISM STATE SWITCH

TAPE TRANSPORT SYSTEM PARTS ADJUSTMENT

The tape transport system is the path from the supply reel disk passing through the video heads to the take-up reel disk. The transport system parts, especially the parts which directly come into contact with a tape, should be kept clean without scratches, dust, oil, etc.

The tape transport system has been adjusted before the unit is shipped from the factory. Therefore, when parts in the transport system are replaced, the transport system is stabilized by only adjusting the new parts correctly.

1. Reel Disk Height Adjustment

Purpose: To set the reels of the cassette to the specified height, thus determining the height of tape.

Test equipment/jigs	Preparation for adjustment	State of VTR	Adjustment points
• Master plane (Parts No.H7099279H) • Reel disk height jig (Parts No.H7099038H)	1) Remove the cassette loading mechanism. 2) Mount the master plane and place the reel disk height jig on it.	——	• Spacers in the supply and take-up reel disks

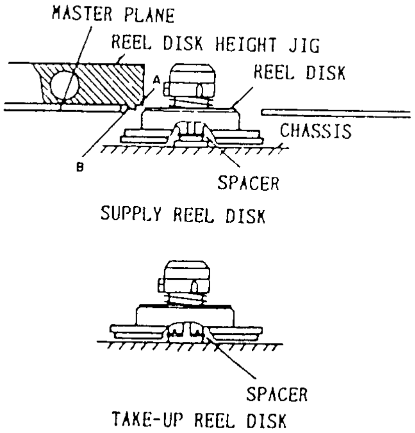
Adjustment procedure

1) Check that the reel disk is between sections A and B of the reel disk height jig.
2) If the disk is not between sections A and B of the jig, replace the spacer (0.25mm thick) in the reel disk or adjust them.

〔Caution〕

When the tension arm and tension band are removed, adjust the tension pole position and tension after reinstalling them.

Adjustment diagram


MASTER PLANE
REEL DISK HEIGHT JIG
A
REEL DISK
CHASSIS
B
SPACER
SPACER

SUPPLY REEL DISK

TAKE-UP REEL DISK

2. Tension Pole Position and Tension Adjustment

Purpose: To make the tension of tape constant so that the contact between the video heads and tape is stabilized.

Test equipment/jigs	Preparation for adjustment	State of VTR	Adjustment points
Screwdriver ——	——	1) Remove the top cover. 2) Set the VTR to the loading state without inserting a cassette. (See page 4-10)	Position adjustment: Tension band holder
		Tension adjustment 3) Play the tension cassette.	Tension adjustment: Tension spring hooking position

Adjustment procedure

- Position Adjustment -

1) Loosen the tension band retaining screw.
2) Insert the tension band holder into one of grooves 1 to 3 and set the gap between the tension pole and chassis to -0.5 to 1mm.
3) Tighten the tension band retaininng screw.
4) After adjustment is completed, perform loading without inserting a cassette and recheck the tension pole position.

- Tension Adjustment -

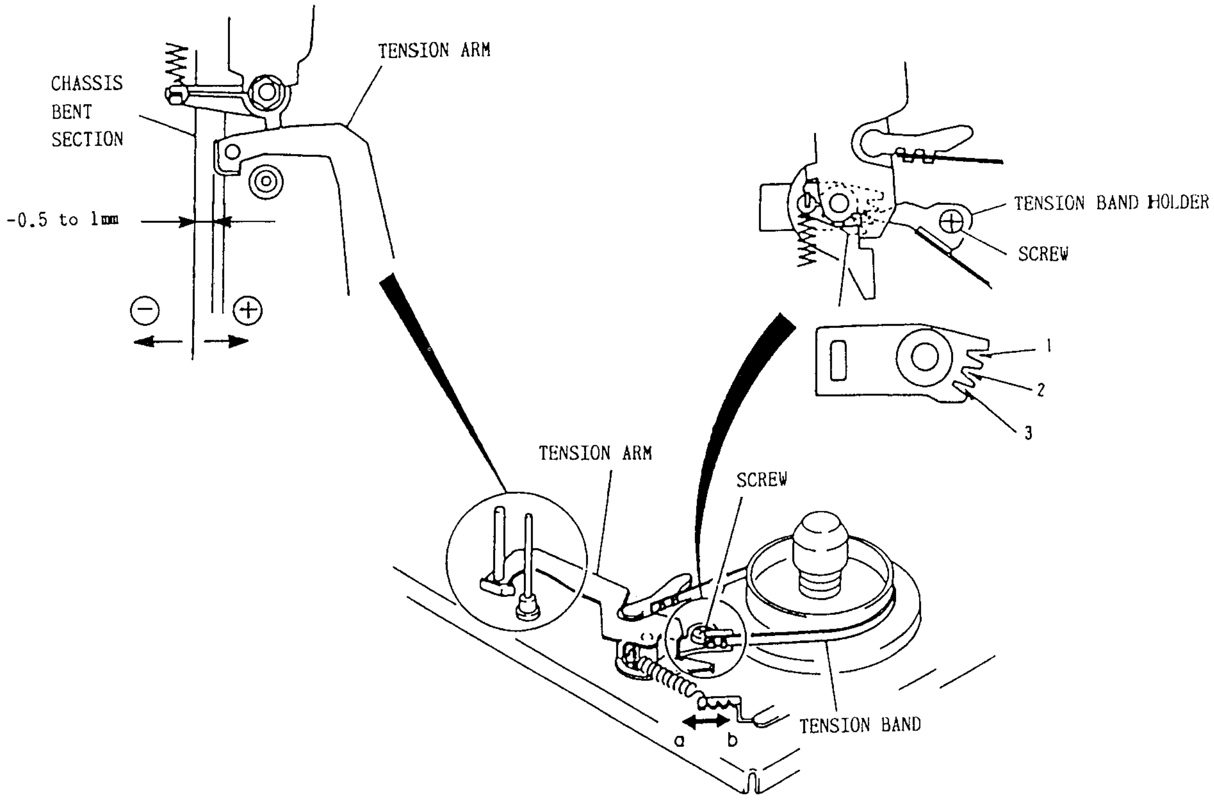
Reading of tension cassette: 34 to 44 g-cm (reference value)

If the reading is higher than the reference, move the spring in direction (a)

If the reading is lower than the reference, move the spring in direction (b).

Caution: When the tension position was changed greatly (more than 6 g-cm), recheck the tension pole position. If it is drifted, readjust the tension pole position and tension.

Adjustment diagram



3. Guide Pole Height Adjustment

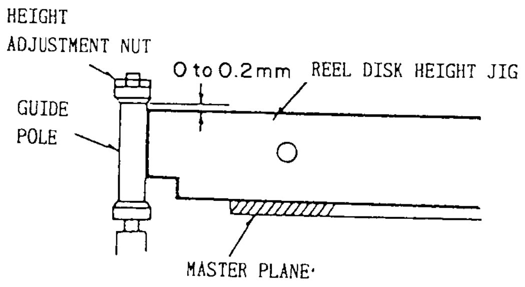
Purpose: To regulate the tape height.

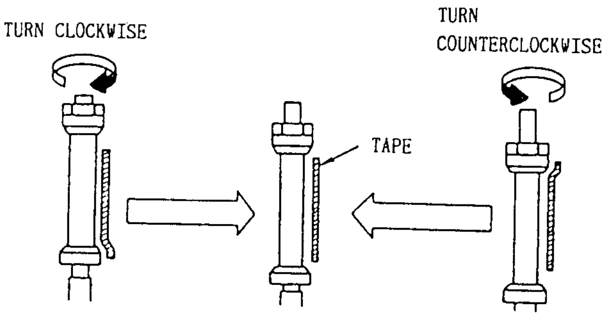
Test equipment/jigs	Preparation for adjustment	State of VTR	Adjustment points
· Master plane (Parts No.H7099279H) · Reel disk height jig (Parts No.H7099038H)	1) Remove the cassette loading mechanism. 2) Mount the master plane and place the reel disk height jig on it.	——	· Nuts on the supply and take-up guide poles
· Blank tape	——	· Playback mode	

Adjustment procedure

1) Set the clearance between the bottom of the guide pole's upper flange and top of the reel disk height jig is 0 to 0.2mm.
2) Load a blank tape to run it and check that the tape does not ride over the upper and lower flanges of the guide pole.
3) If the tape rides over either flange, adjust the height of guide pole as follows.
   If the tape rides over the upper flange, turn the nut counterclockwise.
   If the tape rides over the lower flange, turn the nut clockwise.

Adjustment diagram


HEIGHT ADJUSTMENT NUT
0 to 0.2mm
REEL DISK HEIGHT JIG
GUIDE POLE
MASTER PLANE


TURN CLOCKWISE
TURN COUNTERCLOCKWISE
TAPE

4. Guide Roller Height Adjustment

Purpose: To regulate the height of tape so that the bottom of tape runs along the tape guide line on the cylinder.

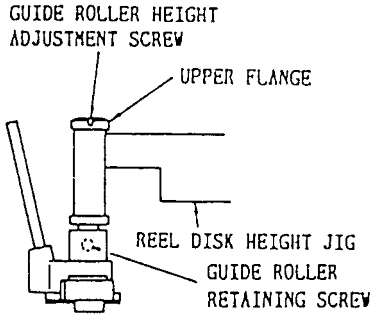
Coarse Adjustment

Test equipment/jigs	Preparation for adjustment	State of VTR	Adjustment points
· Master plane (Parts No.H7099279H) · Reel disk height jig (Parts No.H7099038H) · 0.9mm Hexagonal wrench (Parts No.H7099202H)	1) Remove the cassette loading mechanism. 2) Mount the master plane and place the reel disk height jig on it.	——	Height adjustment screws on the supply and take-up guide rollers

Adjustment procedure

1) Loosen the guide roller retaining screw (so that the guide roller does not turn during loading, unloading and play).
2) Align the bottom of the guide roller's upper flange and the top of the reel disk height jig.
3) Perform the precise adjustment continuously.

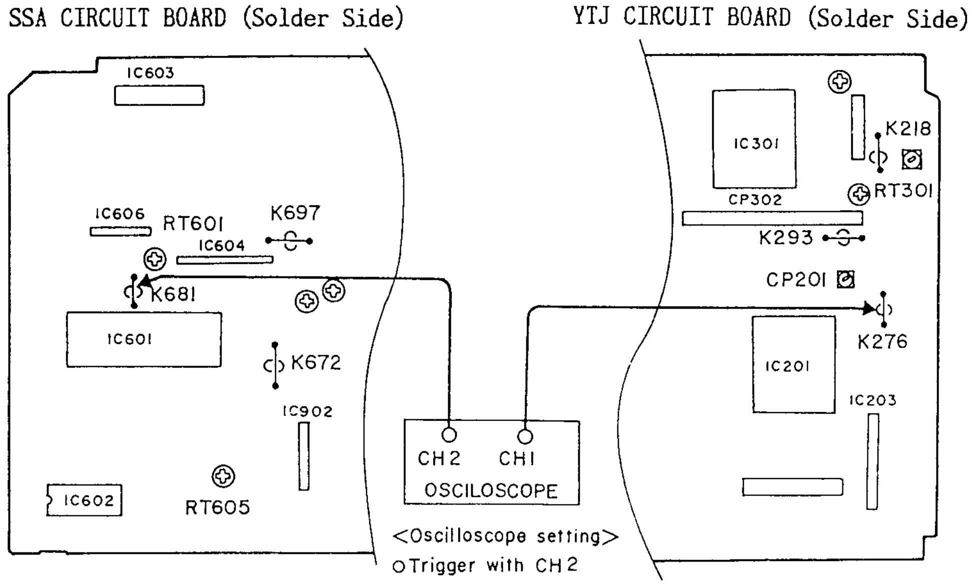
Adjustment diagram


GUIDE ROLLER HEIGHT ADJUSTMENT SCREW
UPPER FLANGE
REEL DISK HEIGHT JIG
GUIDE ROLLER RETAINING SCREW

Precise Adjustment

Test equipment/jigs	Preparation for adjustment	State of VTR	Adjustment points
· Oscilloscope	· CH-1: K276 (PB FM) · CH-2: K681 (SW 25Hz)	· Play alignment tape.	· Guide roller height adjustment screws
· Alignment tape (Parts No.H7099052H)			
· 0.9mm Hexagonal wrench (Parts No.H7099202H)			

Connection diagram

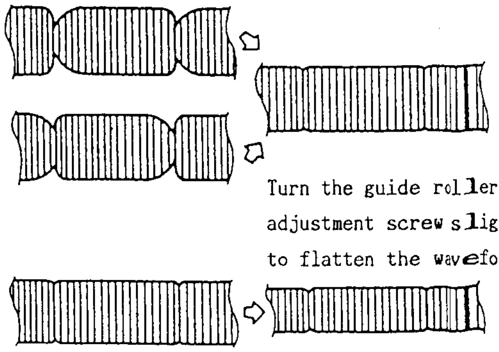

SSA CIRCUIT BOARD (Solder Side)
YTJ CIRCUIT BOARD (Solder Side)
IC603
IC606
RT601
K697
IC604
K681
IC601
K672
IC902
IC602
RT605
IC301
K218
RT301
CP302
K293
CP201
K276
IC201
IC203
CH2
CH1
OSCILOSCOPE

<Oscilloscope setting>
oTrigger with CH2

Adjustment procedure

1) Tracking control (playback) : Centre position (When this adjustment is performed after the cylinder has been replaced, set the tracking control so that the FM output is maximum.)
2) Height adjustment screw: Flatten the FM waveform.
3) Turn the tracking control (playback) to the right.
4) Check that the FM drops at the start and end of FM envelope are unifrom.
5) Tighten the quide roller retaining screw.

Waveforms



Turn the guide roller height adjustment screw slightly to flatten the waveform.

Tracking control at centre

Turn the tracking control to the right

5. Audio / Control (A/C) Head Adjustment

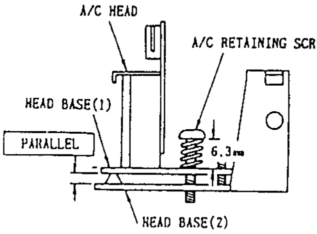
Purpose: To keep the contact between the tape and head even so the specified track is recorded and played back.

Coarse Adjustment

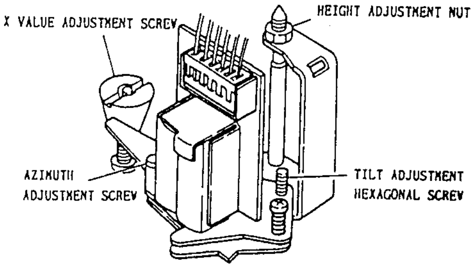
Test equipment/jigs	Preparation for adjustment	State of VTR	Adjustment points
• Master plane (Parts No.H7099279H) • Reel disk height jig (Parts No.H7099038H) • 1.5mm Hexagonal wrench (Parts No.7-700-736-05)	1) Remove the cassette loading mechanism. 2) Mount the master plane and place the reel disk height jig on it.	——	• A/C head retaining screw • Azimuth adjustment screw • Height adjustment nut • Tilt adjustment screw
• Blank tape	——	• Run the blank tape.	

Adjustment procedure/adjustment diagrams

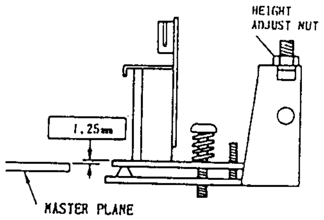
1) A/C head retaining screw: Check that the spring section of the A/C head retaining screw protrudes 6.3mm over the top of head base (1).


A/C HEAD
A/C RETAINING SCREW
HEAD BASE(1)
PARALLEL
6.3mm
HEAD BASE(2)

2) Tilt adjustment hexagonal screw, azimuth adjustment screw: Make head bases (1) and (2) parallel.

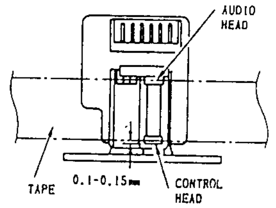

X VALUE ADJUSTMENT SCREW
HEIGHT ADJUSTMENT NUT
AZIMUTH ADJUSTMENT SCREW
TILT ADJUSTMENT HEXAGONAL SCREW

3) Height adjustment nut: Set the clearance between the master plane and head base (1) to approx. 1.25mm


HEIGHT ADJUST NUT
1.25mm
MASTER PLANE

4) Remove the adjustment jigs, load a blank tape and set the VTR to the play mode.

5) Check that there is no conspicuous curling and riding over around the A/C head. If there is conspicuous curling or riding over, readjust the tilt adjustment hexagonal screw, azimuth adjustment screw and height adjustment nut. When the bottom edge of tape is 0.1 to 0.15mm from the bottom edge of the control head's core, the height of A/C head is ideal.


AUDIO HEAD
TAPE
0.1-0.15mm
CONTROL HEAD

6) Perform the precise adustment continuosly.

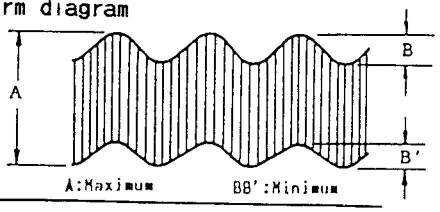
Precise Adjustment

Test equipment/jigs	Preparation for adjustment	State of VTR	Adjustment points
• Oscilloscope	• Audio output jack	• Play alignment tape (7kHz section)	• Azimuth adjustmnt screw • Height adjustment nut • Tilt adjustment screw
• Alignment tape (Parts No.H7099052H) • 1.5mm Hexagonal wrench (Parts No.7-700-736-05)			

Adjustment procedure

1) Adjust the azimuth adjustment screw, height adjustment nut and tilt adjustment hexagonal screw slightly, alternately: Make the audio output maximum and flat (minimum fluctuations).

Waverform diagram


A
B
B'
A:Maximum
BB':Minimum

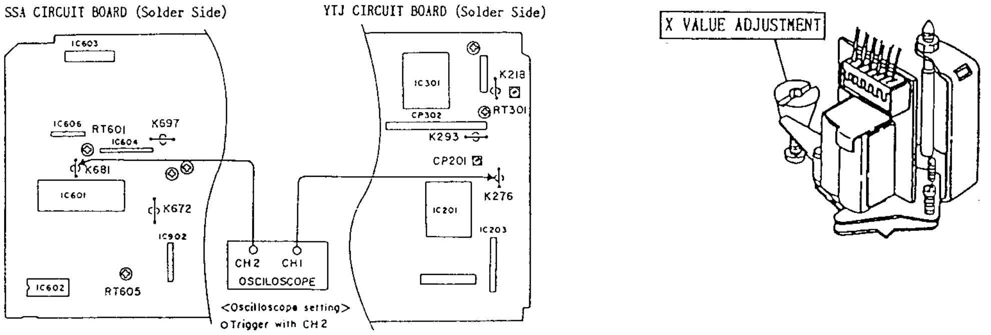
6. X Value Adjustment

Purpose: To obtain compatibility with other VTRs.

Note: Always perform the tracking preset adjustment (page 3-3) that should be done when the cylinder is replaced before adjusting the X value.

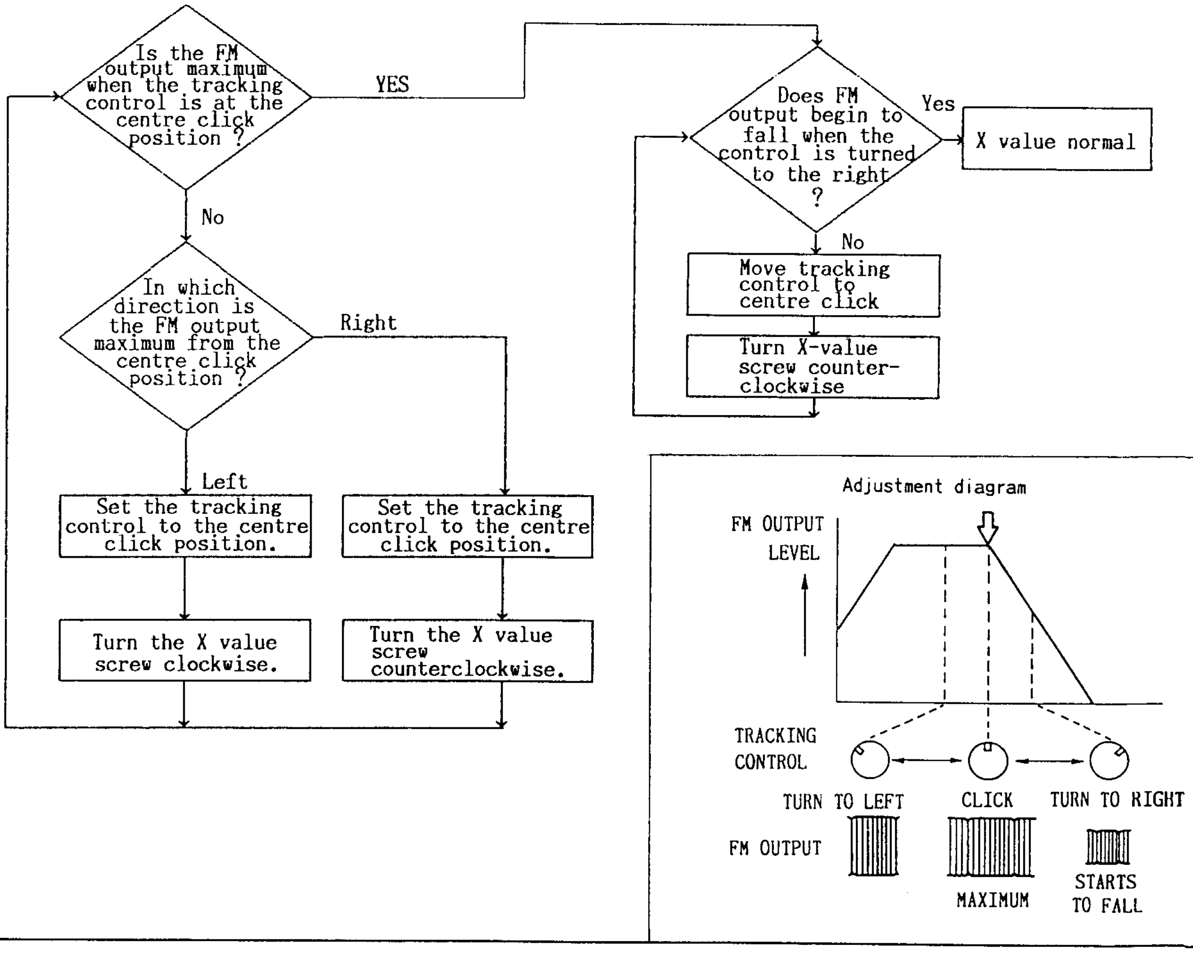
Test equipment/jigs	Preparation for adjustment	State of VTR	Adjustment point
• Oscilloscope	• CH-1: K276 (PB FM) • CH-2: K681 (SW 25Hz)	• Play alignment tape (Stairsteps Section)	• X value adjustment screw
• Alignment tape (Parts No.H7099052H)	——		
• 1.5mm Hexagonal wrench (Parts No.7-700-736-05)			

Connection diagram


SSA CIRCUIT BOARD (Solder Side)
YTJ CIRCUIT BOARD (Solder Side)
X VALUE ADJUSTMENT
IC603
IC606
RT601
K697
IC604
K681
IC601
K672
IC902
IC602
RT605
CH2
CH1
OSCILOSCOPE
<Oscilloscope setting>
OTrigger with CH2
IC301
K218
CP302
RT301
K293
CP201
K276
IC201
IC203

Adjustment procedure

Since the 57μm head will trace over 49μm width track, centre tracking control and make adjustments to maximize FM output, or turn the control clockwise and adjust so that FM output begins to fall immediately.

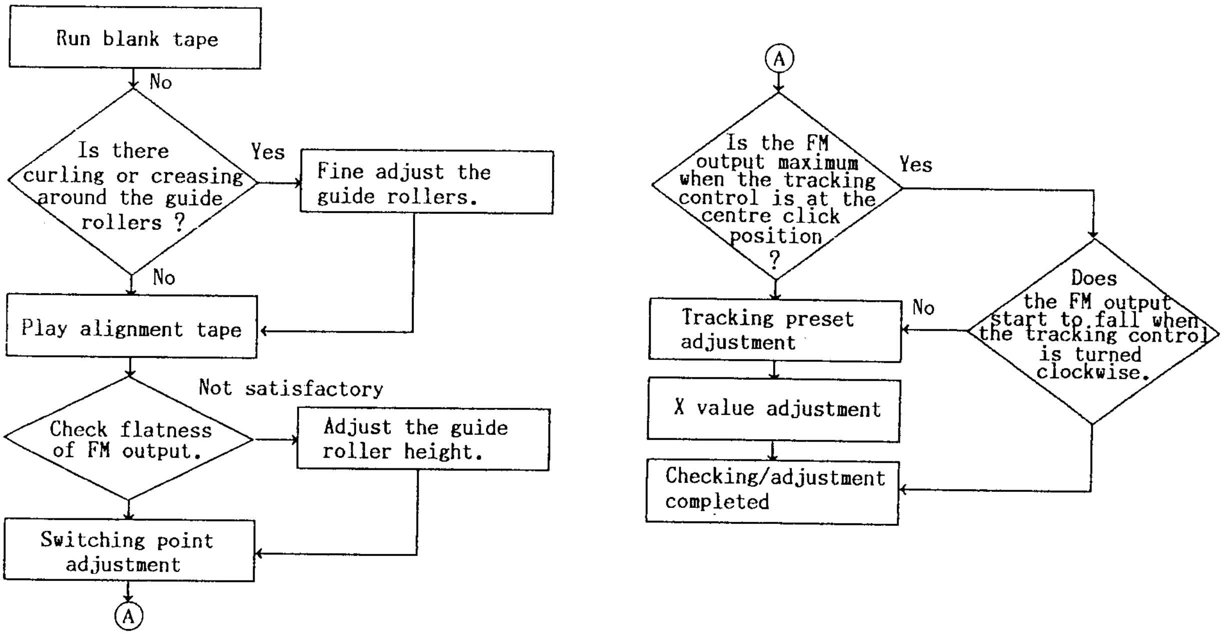

Is the FM output maximum when the tracking control is at the centre click position ?
YES
No
In which direction is the FM output maximum from the centre click position ?
Right
Left
Set the tracking control to the centre click position.
Set the tracking control to the centre click position.
Turn the X value screw clockwise.
Turn the X value screw counterclockwise.
Does FM output begin to fall when the control is turned to the right ?
Yes
X value normal
No
Move tracking control to centre click
Turn X-value screw counter-clockwise
Adjustment diagram
FM OUTPUT LEVEL
TRACKING CONTROL
TURN TO LEFT
CLICK
TURN TO RIGHT
FM OUTPUT
MAXIMUM
STARTS TO FALL

7. Adjustments After Replacing Cylinder (Video Heads)

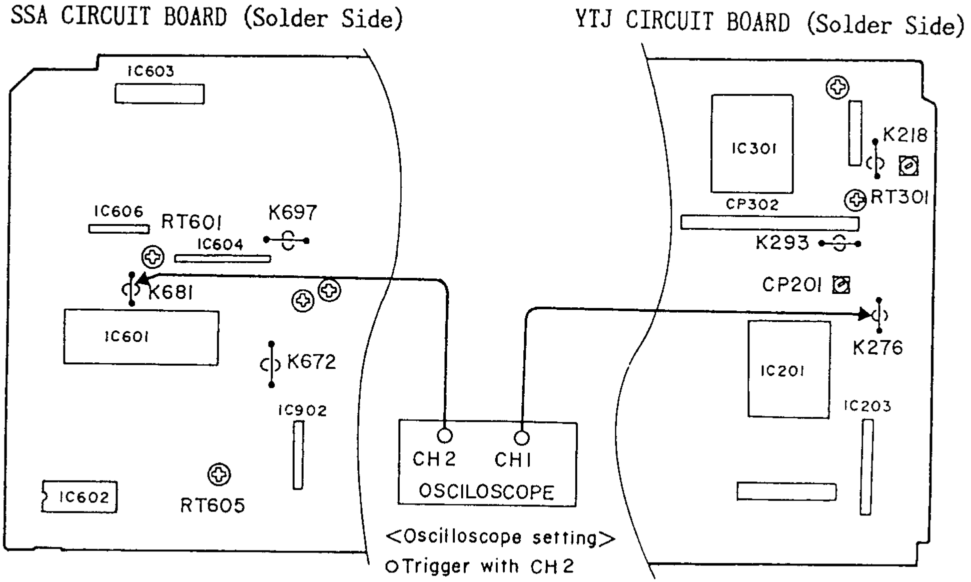
Purpose: To suppress drift in the height relative to the guide roller and to minimize the X value after replacing the cylinder.

Test equipment/jigs	Preparation for adjustment	State of VTR	Adjustment points
· Oscilloscope	Checking the flatness · CH-1: K276 (PB FM) · CH-2: K681 (SW 25Hz)	· Run the blank tape · Play alignment tape	· Guide rollers (precise adjustment on page 4-5) · Switching point (page 3-3) · Tracking preset (page 3-4) · X value (page 4-7)
· Blank tape	———		
· Alignment tape (Parts No.H7099052H)			
· 0.9mm Hexagonal wrench (Parts No.H7099202H)			
· 1.5mm Hexagonal wrench (Parts NO.7-700-736-05)			
· X value adjustment screwdriver			

Checking/adjustment procedure


Run blank tape
No
Is there curling or creasing around the guide rollers ?
Yes
Fine adjust the guide rollers.
No
Play alignment tape
Not satisfactory
Check flatness of FM output.
Adjust the guide roller height.
Switching point adjustment
Ⓐ
Ⓐ
Is the FM output maximum when the tracking control is at the centre click position ?
Yes
No
Tracking preset adjustment
Does the FM output start to fall when the tracking control is turned clockwise.
X value adjustment
Checking/adjustment completed

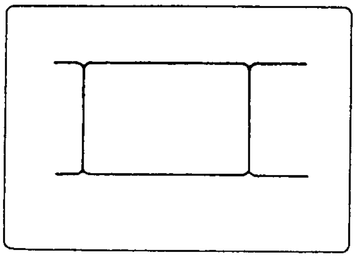
Adjustment diagram


SSA CIRCUIT BOARD (Solder Side)
IC603
IC606
RT601
K697
IC604
K681
IC601
K672
IC902
IC602
RT605
CH2
CH1
OSCILOSCOPE
YTJ CIRCUIT BOARD (Solder Side)
IC301
K218
RT301
CP302
K293
CP201
K276
IC201
IC203

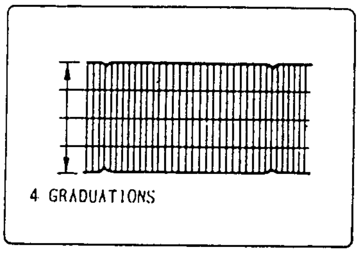
<Oscilloscope setting>
○Trigger with CH2

Checking procedure of the flatness and fluctuations of FM output and waveform diagrams

1) Use the tracking control to maximize the FM output.

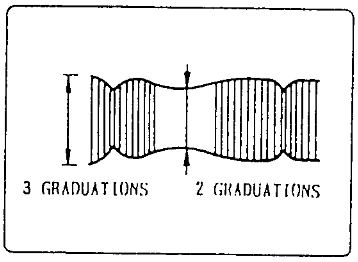


2) Fine tune the voltage level range of the oscilloscope to set the FM output to 4 graduations.



3) Turn the tracking control to set the maximum amplitude of the FM output to 3 graduations.

4) Check that the mimimum amplitude is more than 2 graduations.



5) Check that the level fluctuations between the maximum and minimum amplitudes are less than 13%.

8. Tension/Torque Checks

Purpose: It is necessary to check the tension, torque and compression force at the tape take-up section and moving section to make the tape running smooth and satisfy the basic performance of the VTR. Check these if the tape running is not smooth or the tape speed is abnormal.

Test equipment/jigs	State of VTR
• Torque gauge • Torque gauge adaptor	• Set the VTR to each operaion mode without inserting a cassette. (See page 4-10)

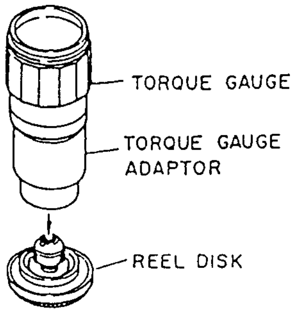
Item	VTR operation mode	Measured reel	Measured value
Main brake torque	Stop (Note-1)	Supply & take-up reel	170 g·cm or more
Slack removal torque	Unloading	Supply reel	90 ~ 230 g·cm
Fast forward torque	Fast forward	Take-up reel	400 g·cm or more
Rewind torque	Rewind	Supply reel	400 g·cm or more
Take-up torque	Play	Take-up reel	80 ~ 170 g·cm
Back-tension torque	Fast forward	Supply reel	4 ~ 25 g·cm
	Rewind	Take-up reel	

Checking method

The values are measured using a torque gauge and torque gauge adaptor with the torque gauge fixed.

Note-1: This value is measured when the VTR is shifted in the unloading direction from the fast forward or rewind mode and quick braking is applied to both disks.

Adjustment diagram



Note: To set VTR to the loading state without inserting a cassette

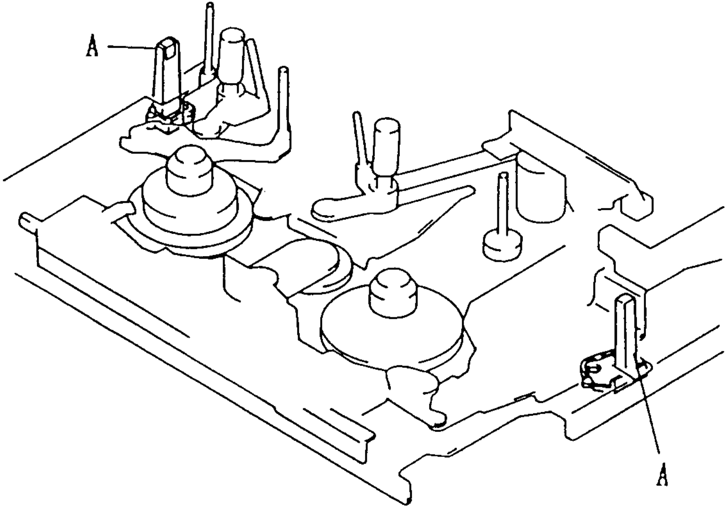
1) Remove the top cover and front panel.
2) Remove the cassette loading mechanism.
3) Unplug the power cord form the AC outlet.
4) Cover the supply and take-up end sensors (sections A in the figure below) with black masking tape, etc. to shut off the light.
5) Plug the power cord into the AC outlet.
6) Turn the VTR on.
   The VTR can accept the inputs of each mode in this state. However, the rewind operation cannot be performed for more than a few seconds because the take-up reel disk in the stop state and reel pulses cannot be detected.

〔Cautions〕

Always return the VTR to the original state in the following order after the above operations have been performed.

1) Remove the masking tape, etc. from the supply and take-up end sensor.
2) Unplug the power cord from the AC outlet to reset the system control microprocessor.

Adjustment diagram



MAINTENANCE/INSPECTION PROCEDURE

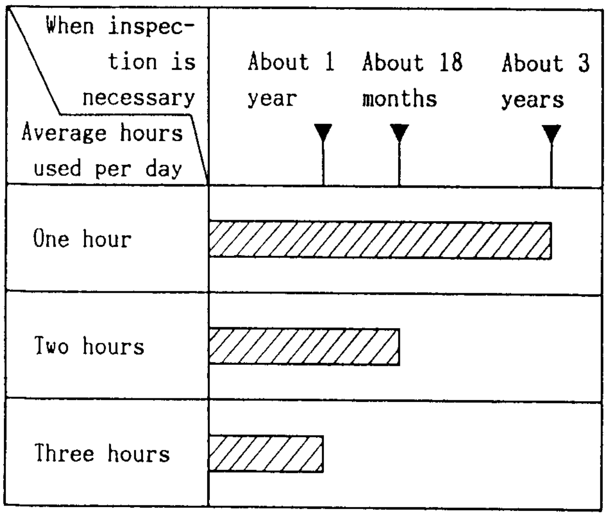
1. Required Maintenance

The recording density of a VTR is much higher than that of an audio tape recorder. VTR components must be very precise, at tolerances of 1/1000mm, to ensure compatible with other VTRs. If any of these components are worn or dirty, the symptoms will be the same as if the part is defective.To ensure good picture, periodic inspection and maintenance, including replacement of worn-out parts and lubrication, is necessary.

2. Scheduled Maintenance

Schedules for maintenance and inspection are not fixed because they vary greatly according to the way in which the customer uses the VTR, and the environment in which the VTR is used. But, in general home use, a good picture will be maintained if the inspection and maintenance is made every 1,000 hours. The table below shows the relation between time used and inspection period.

Table 1



3. Check before starting Repairs

The following faults can be remedied by cleaning and oiling. Check the need for lubrication and the conditions of cleanliness in the unit. Check with the customer to find out how often the unit is used. If from that, you determine that the unit is ready for inspection and maintenance, check the following parts.

Table 2

Phenomenon	Inspection Location
Poor S/N, no color	Dirt on video head or worn video head
Tape does not run or tape is slack	Dirt on pressure roller, reel belt or flywheel belt
Vertical jitter, horizontal jitter	Dirt on video head or in tape transport system
Color beats	Dirt on full-erase head
Low volume of sound distorted	Dirt on audio/control head
Fast forward or rewind is not done or rotation is slow	Dirt on reel belt

4. Tools Needed for Inspection and Maintenance

(1) Head cleaning stick
(2) Oil and greace
(3) Alcohol (or freon)
(4) Gauze or chamois cloth
(5) Screwdriver for adjusting X-value

5. Maintenance Procedures

5-1. Cleaning

(1) Cleaning video head

First use a cleaning tape. If dirt on head is too stubborn to remove by tape, use the head cleaning kit. Coat the cleaning stick with cleaning fluid to the point indicated. Touch the stick to the head tip and gently turn the head (rotating cylinder) to the right and left.

(Do not move the stick vertically and make sure that only the buckskin on the stick comes into contact with the head. Otherwise, the head may be damaged.)

Thoroughly dry the head. Then test run a tape. If cleaning fluid remains on the video head, the tape may be damaged when it comes into contact with the head surface.

(2) Cleaning the tape transport system and drive system, etc.

Wipe with gauze wetted with alcohol or freon.

Note:

① The tape transport system is the system which comes into contact with the running tape. The drive system consists of those parts which run the tape.

② Make sure that during cleaning you do not touch the tape transport system with the tip of a screwdriver and that no force is applied to the system that would cause deforming.

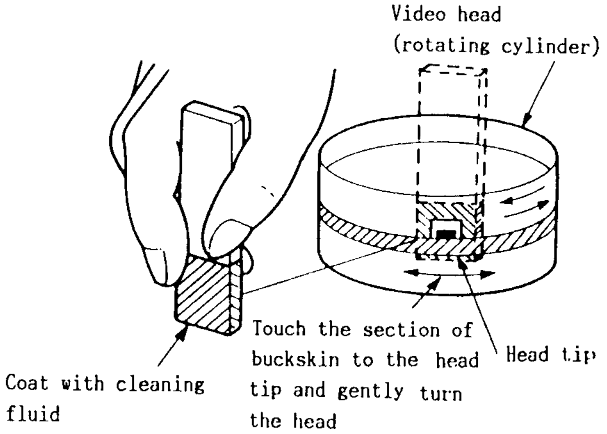
5-2. Lubrication

(1) Guidelines for lubricating with oil

Use the oiler to apply one or two drop of pan motor oil or Sonic Slidas oil. Make sure not to use too much oil because it may spill over or leak out coming in contact with rotating parts and causing slippage or other problems. If too much oil is applied, wipe clean with alcohol of freon.

(2) Periodic oil lubrication

Oil at specified locations every 1,000 hours.


Video head
(rotating cylinder)
Touch the section of buckskin to the head tip and gently turn the head
Head tip
Coat with cleaning fluid

5-3. Greasing

(1) Greasing guidelines

Apply grease, Hitazol or Froil, with a stick or brush. Do not use excess grease. It may come into contact with the tape transport or drive system. Wipe any excess and clean with gauze wetted in alcohol or freon.

(2) Periodic greasing

Grease specified locations every 5,000 hours.

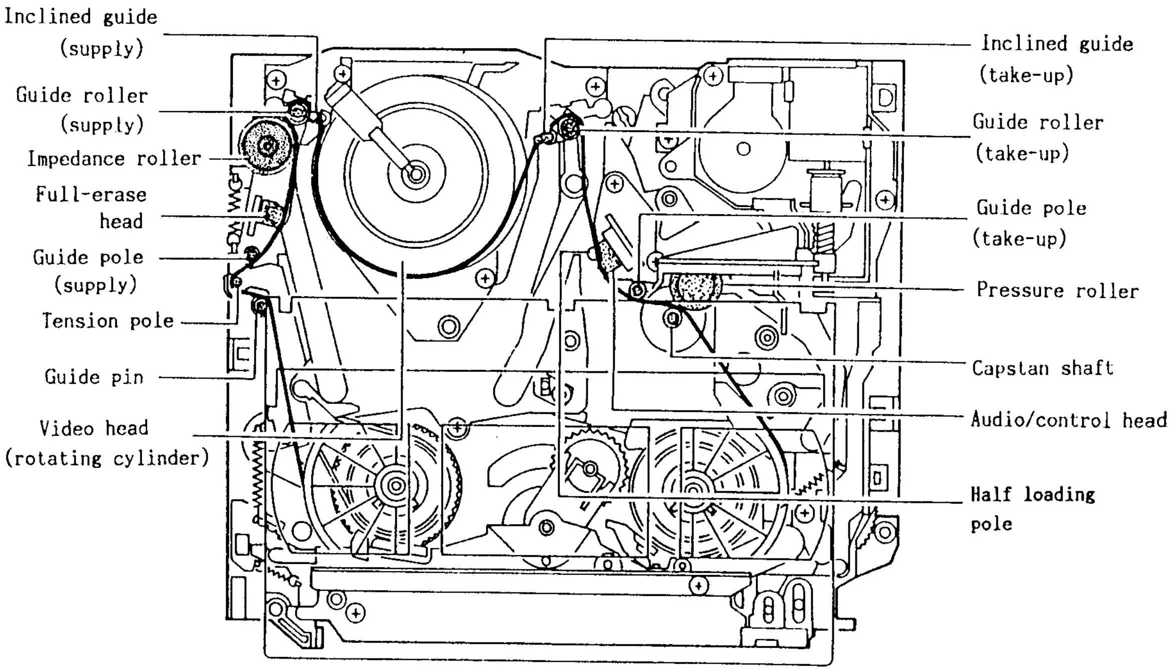

Inclined guide
(supply)
Guide roller
(supply)
Impedance roller
Full-erase
head
Guide pole
(supply)
Tension pole
Guide pin
Video head
(rotating cylinder)
Inclined guide
(take-up)
Guide roller
(take-up)
Guide pole
(take-up)
Pressure roller
Capstan shaft
Audio/control head
Half loading
pole

Fig.1 Tape Transport System

6. Inspection Locations

	Phenomenon	Inspection Location	Replacement
①	Color beats	Dirt on full-erase head	
②	Poor S/N, no color	Dirt on video head	○
③	Vertical jitter	Dirt on video head Dirt in tape transport system	
④	Low volume, sound distorted	Dirt on audio/control head	○
⑤	Tape does not run. Tape is slack.	Dirt on pressure roller	○

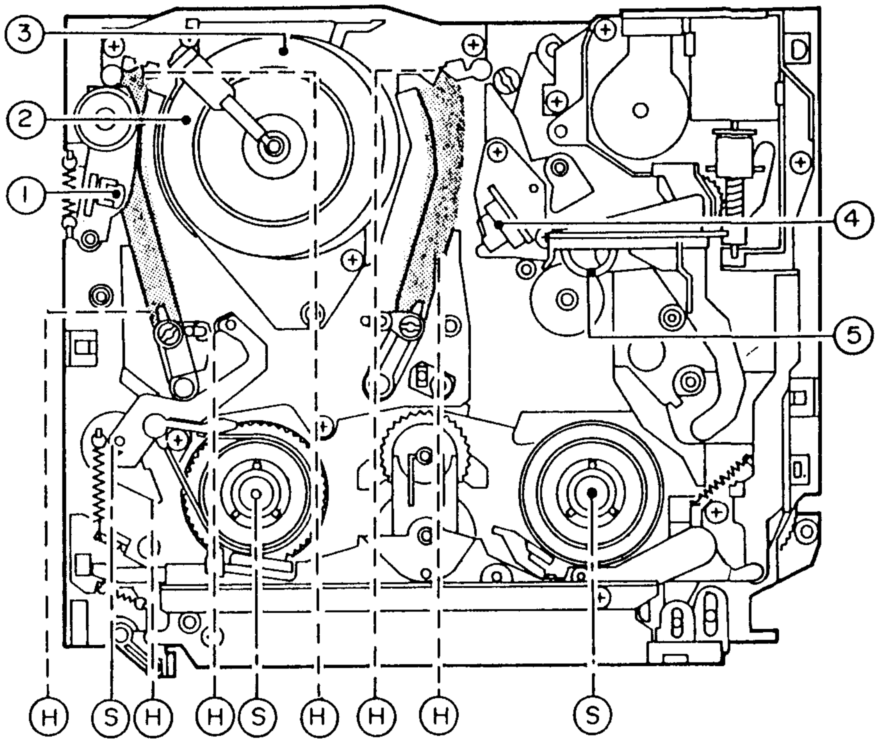


Fig. 2 Top View of Mechanism

Phenomenon	Inspection Location	Replacement
Do not fast forward or rewind, or rotation is slow Tape does not run Slack tape	Dirt on reel belt	○

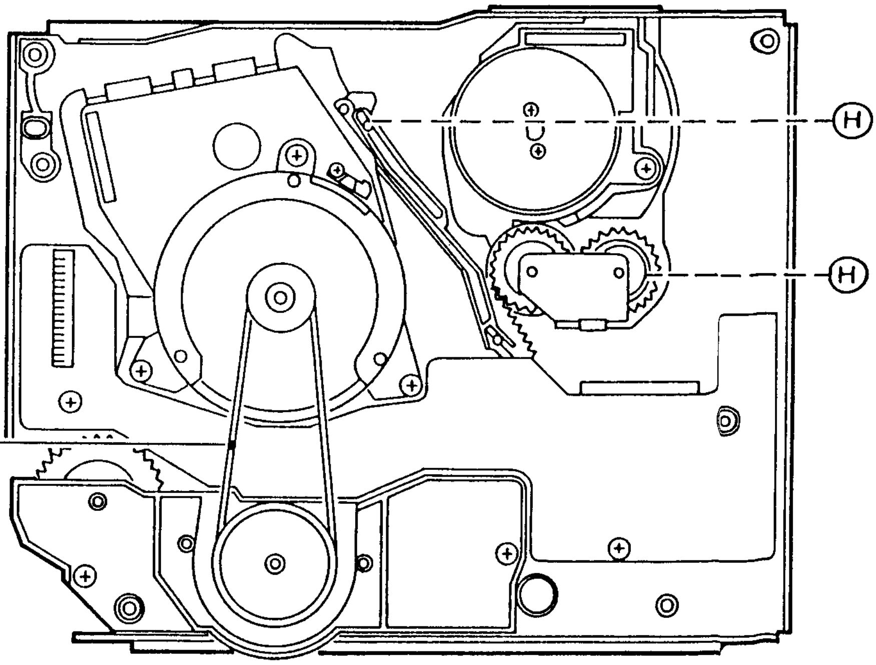


Fig.3 Bottom View of Mechanism

Note: If locations marked with ○ do not operate normally after cleaning, they are worn. Replace.
See the EXPLODED VIEWS at the end of this manual as well as the above illustrations for the sections to be lubricated and greased.

Ⓢ : OIL
Ⓗ : GREASE

Digital Process Circuit Board Fault Analysis flowcharts

The following are flowcharts for the efficient analysis of faults in the digital process circuit board.

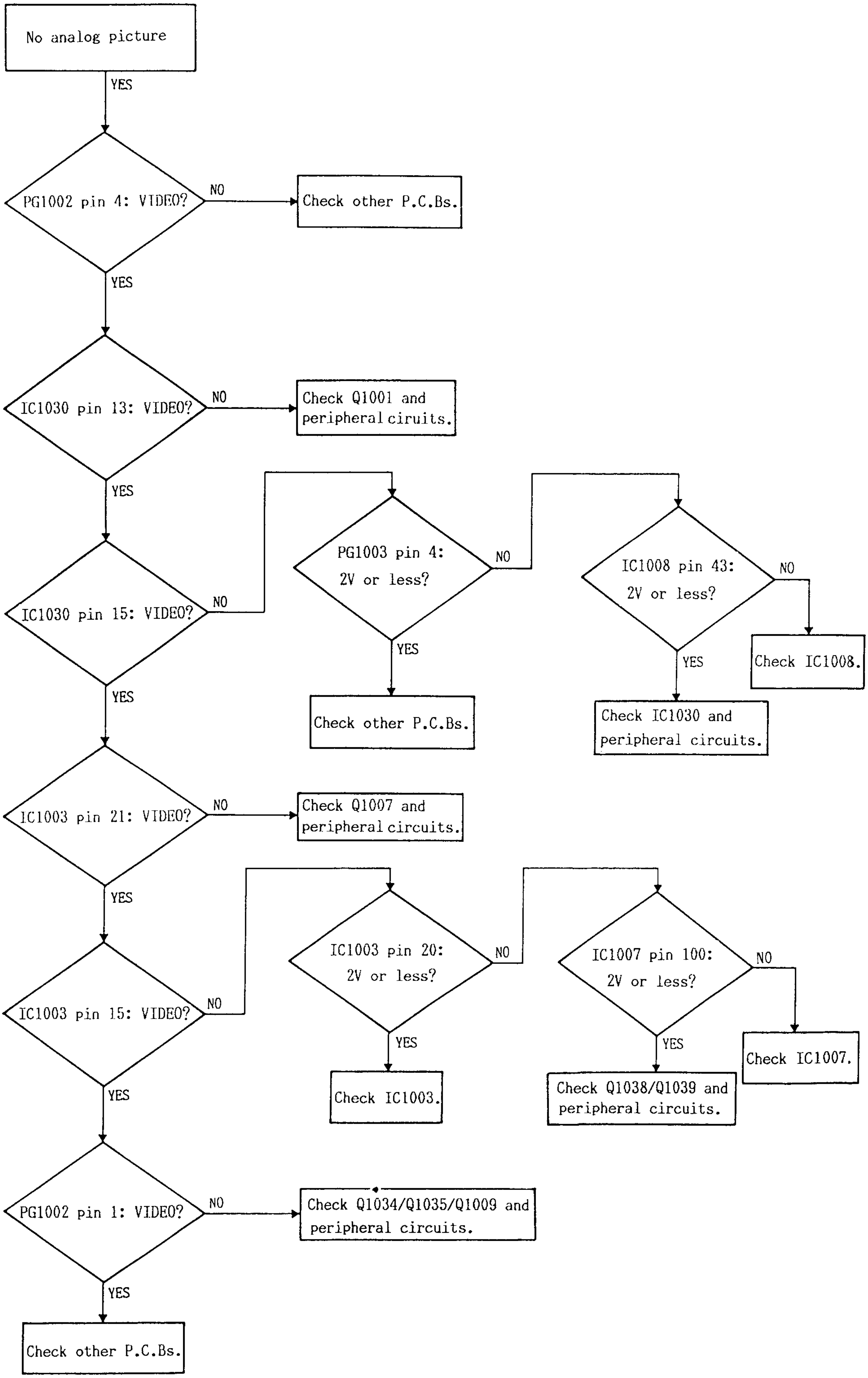
Cautions :

- Check that the the supply voltages, A5V (PG1002 pin 9) and 12V (PG1002 pin 3), to other ciurcit boards are provided.
- Be sure to perform coarse adjustment of the digital process circuit board.
- When no special instructions are given, apply a colour bar signal to the video input jack and operate the programme select buttons to select "AUX".

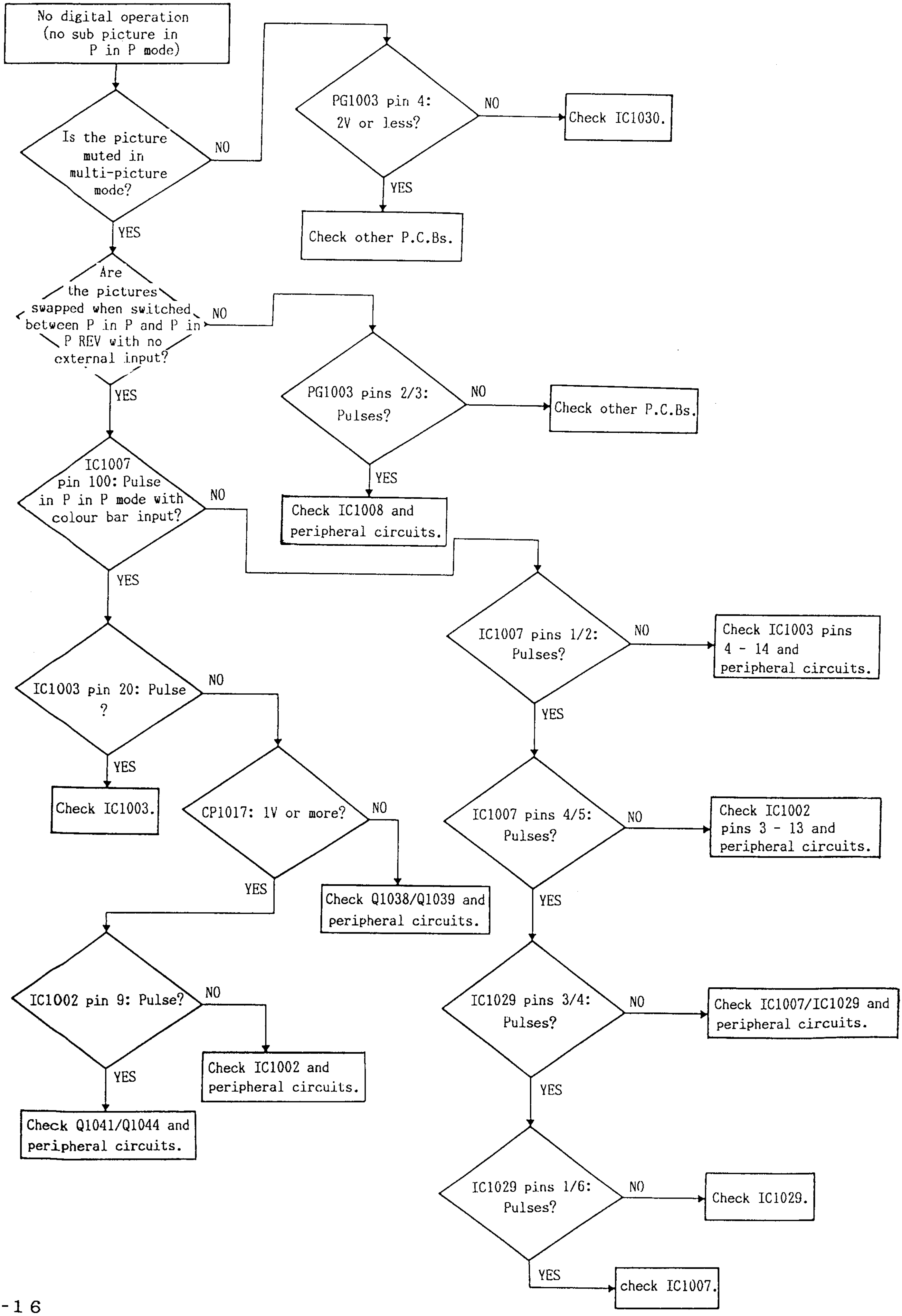
Fault analysis : Contents of flowcharts

1. No analog picture ······ 4-15
2. No digital operation (No sub picture in P in P mode) ······ 4-16
3. No luminance in the digital picture ······ 4-17
4. No colour in digital picture ······ 4-18
5. Horizontal sync distortion ······ 4-19
6. Vertical sync distortion ······ 4-20
7. Missing of gradation ······ 4-21
8. Unstable colour ······ 4-21
9. Others ······ 4-22

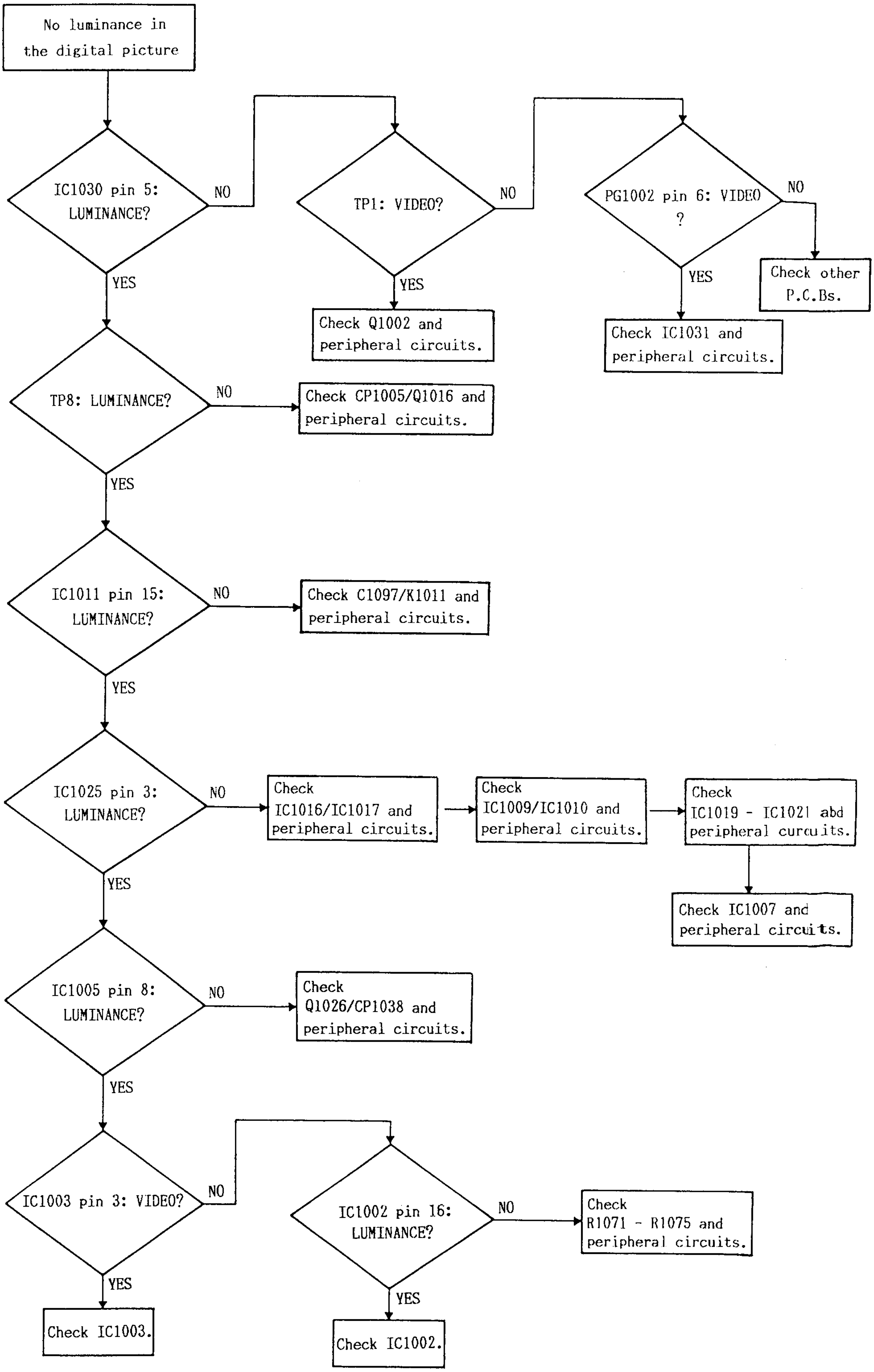
1.


No analog picture
YES
PG1002 pin 4: VIDEO?
NO
Check other P.C.Bs.
YES
IC1030 pin 13: VIDEO?
NO
Check Q1001 and peripheral ciruits.
YES
IC1030 pin 15: VIDEO?
NO
PG1003 pin 4: 2V or less?
NO
IC1008 pin 43: 2V or less?
NO
Check IC1008.
YES
Check IC1030 and peripheral circuits.
YES
Check other P.C.Bs.
YES
IC1003 pin 21: VIDEO?
NO
Check Q1007 and peripheral circuits.
YES
IC1003 pin 15: VIDEO?
NO
IC1003 pin 20: 2V or less?
NO
IC1007 pin 100: 2V or less?
NO
Check IC1007.
YES
Check Q1038/Q1039 and peripheral circuits.
YES
Check IC1003.
YES
PG1002 pin 1: VIDEO?
NO
Check Q1034/Q1035/Q1009 and peripheral circuits.
YES
Check other P.C.Bs.

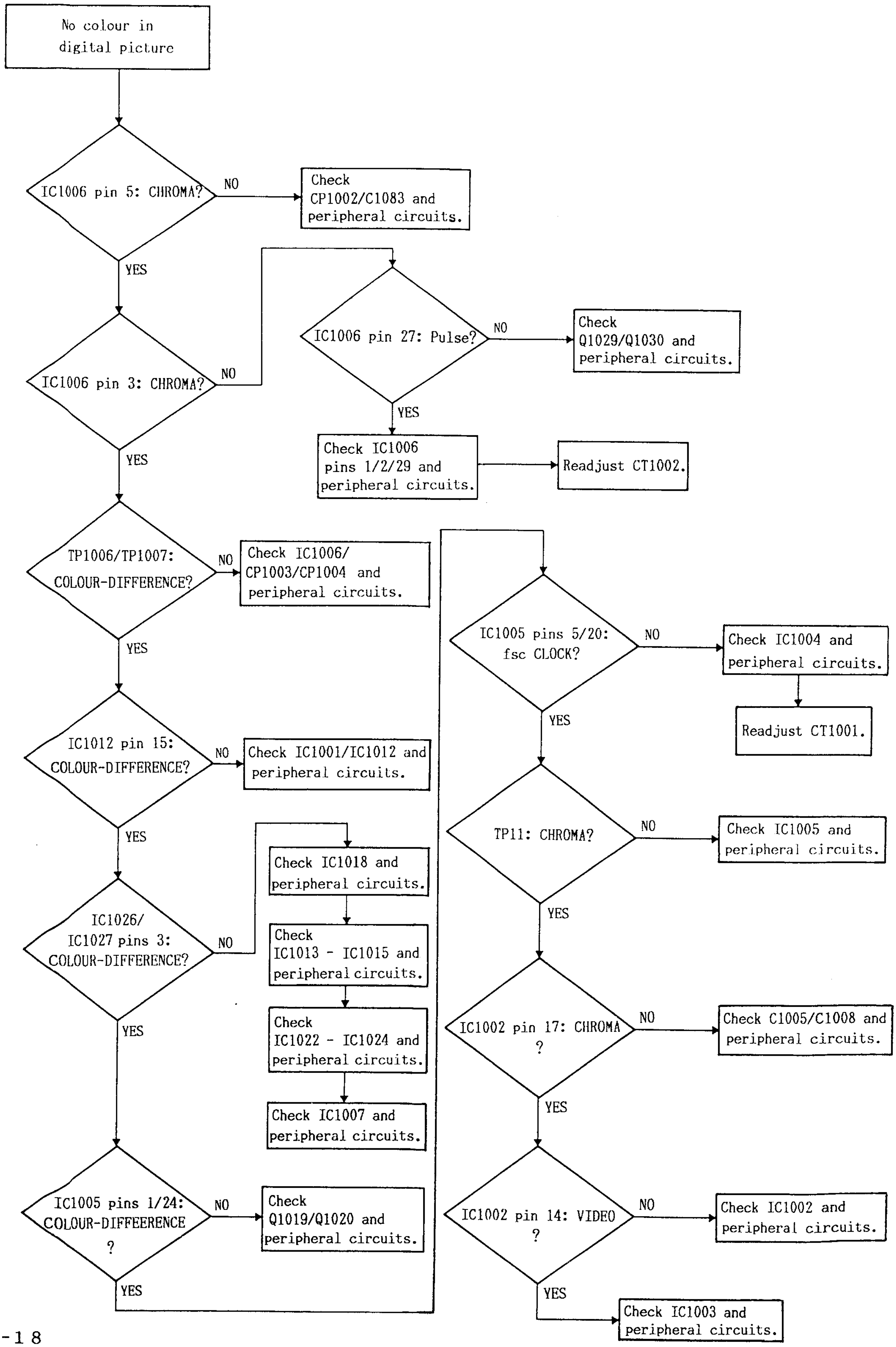
2.


No digital operation (no sub picture in P in P mode)
Is the picture muted in multi-picture mode?
NO
PG1003 pin 4: 2V or less?
NO
Check IC1030.
YES
Check other P.C.Bs.
YES
Are the pictures swapped when switched between P in P and P in P REV with no external input?
NO
PG1003 pins 2/3: Pulses?
NO
Check other P.C.Bs.
YES
Check IC1008 and peripheral circuits.
YES
IC1007 pin 100: Pulse in P in P mode with colour bar input?
NO
IC1007 pins 1/2: Pulses?
NO
Check IC1003 pins 4 - 14 and peripheral circuits.
YES
IC1007 pins 4/5: Pulses?
NO
Check IC1002 pins 3 - 13 and peripheral circuits.
YES
IC1029 pins 3/4: Pulses?
NO
Check IC1007/IC1029 and peripheral circuits.
YES
IC1029 pins 1/6: Pulses?
NO
Check IC1029.
YES
check IC1007.
YES
IC1003 pin 20: Pulse ?
NO
CP1017: 1V or more?
NO
Check Q1038/Q1039 and peripheral circuits.
YES
IC1002 pin 9: Pulse?
NO
Check IC1002 and peripheral circuits.
YES
Check Q1041/Q1044 and peripheral circuits.
YES
Check IC1003.

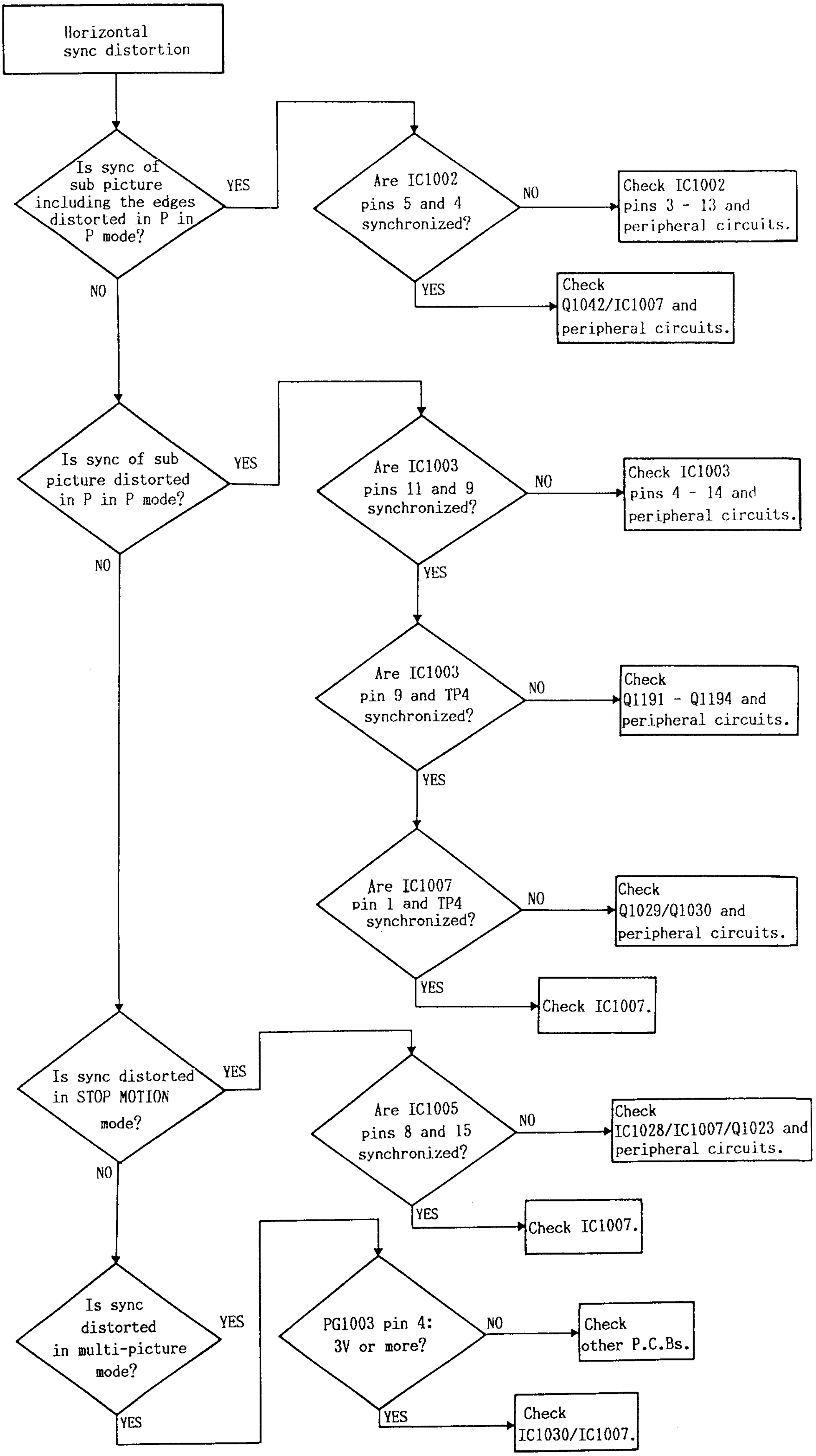
3.


No luminance in the digital picture
IC1030 pin 5: LUMINANCE?
NO
YES
TP1: VIDEO?
NO
YES
Check Q1002 and peripheral circuits.
PG1002 pin 6: VIDEO ?
NO
YES
Check other P.C.Bs.
Check IC1031 and peripheral circuits.
TP8: LUMINANCE?
NO
YES
Check CP1005/Q1016 and peripheral circuits.
IC1011 pin 15: LUMINANCE?
NO
YES
Check C1097/K1011 and peripheral circuits.
IC1025 pin 3: LUMINANCE?
NO
YES
Check IC1016/IC1017 and peripheral circuits.
Check IC1009/IC1010 and peripheral circuits.
Check IC1019 - IC1021 abd peripheral curcuits.
Check IC1007 and peripheral circuits.
IC1005 pin 8: LUMINANCE?
NO
YES
Check Q1026/CP1038 and peripheral circuits.
IC1003 pin 3: VIDEO?
NO
YES
Check IC1003.
IC1002 pin 16: LUMINANCE?
NO
YES
Check R1071 - R1075 and peripheral circuits.
Check IC1002.

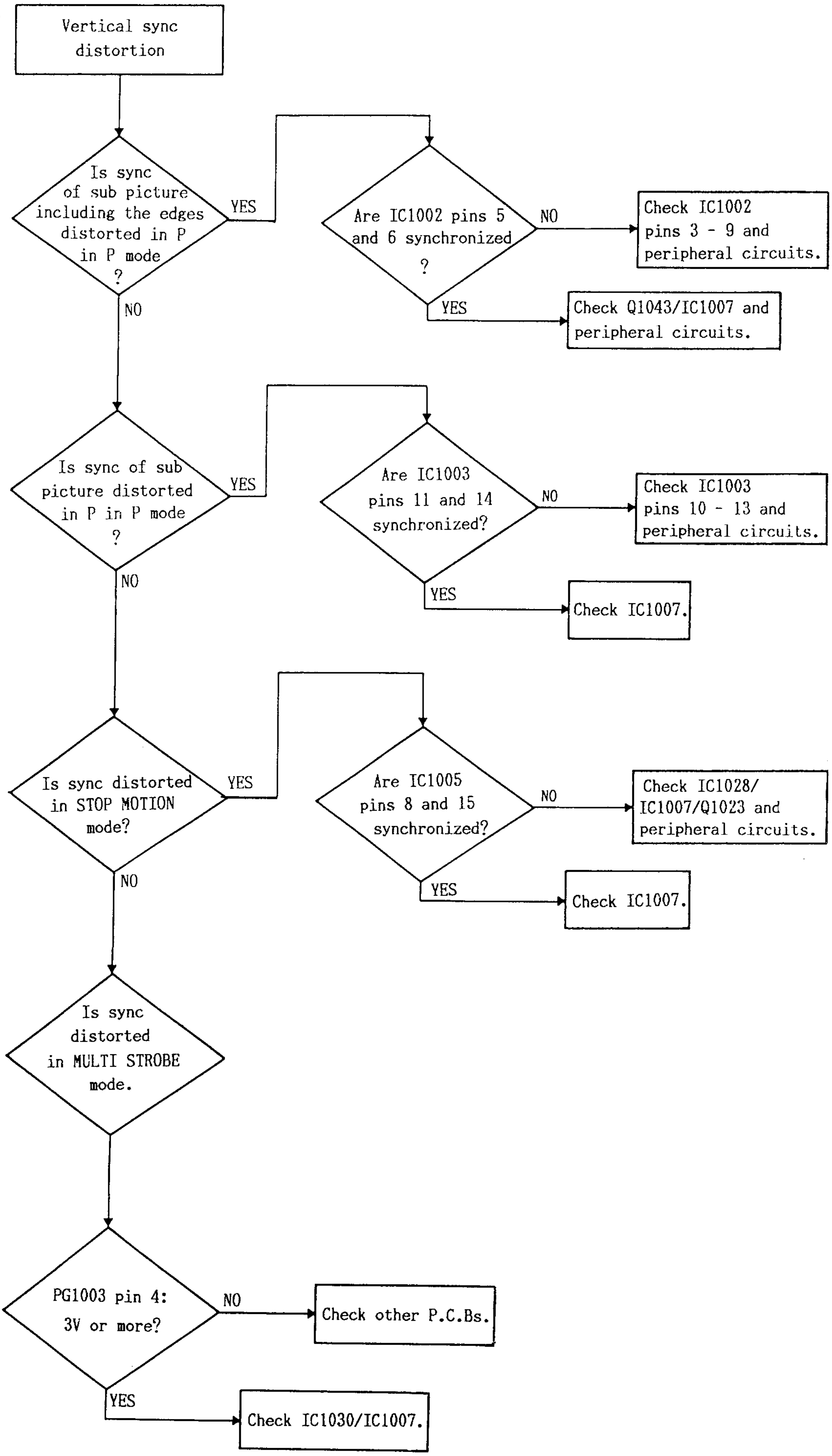
4.


No colour in digital picture
IC1006 pin 5: CHROMA?
NO
Check CP1002/C1083 and peripheral circuits.
YES
IC1006 pin 3: CHROMA?
NO
IC1006 pin 27: Pulse?
NO
Check Q1029/Q1030 and peripheral circuits.
YES
Check IC1006 pins 1/2/29 and peripheral circuits.
Readjust CT1002.
YES
TP1006/TP1007: COLOUR-DIFFERENCE?
NO
Check IC1006/ CP1003/CP1004 and peripheral circuits.
YES
IC1012 pin 15: COLOUR-DIFFERENCE?
NO
Check IC1001/IC1012 and peripheral circuits.
YES
IC1026/ IC1027 pins 3: COLOUR-DIFFERENCE?
NO
Check IC1018 and peripheral circuits.
Check IC1013 - IC1015 and peripheral circuits.
Check IC1022 - IC1024 and peripheral circuits.
Check IC1007 and peripheral circuits.
YES
IC1005 pins 1/24: COLOUR-DIFFEERENCE ?
NO
Check Q1019/Q1020 and peripheral circuits.
YES
IC1005 pins 5/20: fsc CLOCK?
NO
Check IC1004 and peripheral circuits.
Readjust CT1001.
YES
TP11: CHROMA?
NO
Check IC1005 and peripheral circuits.
YES
IC1002 pin 17: CHROMA ?
NO
Check C1005/C1008 and peripheral circuits.
YES
IC1002 pin 14: VIDEO ?
NO
Check IC1002 and peripheral circuits.
YES
Check IC1003 and peripheral circuits.

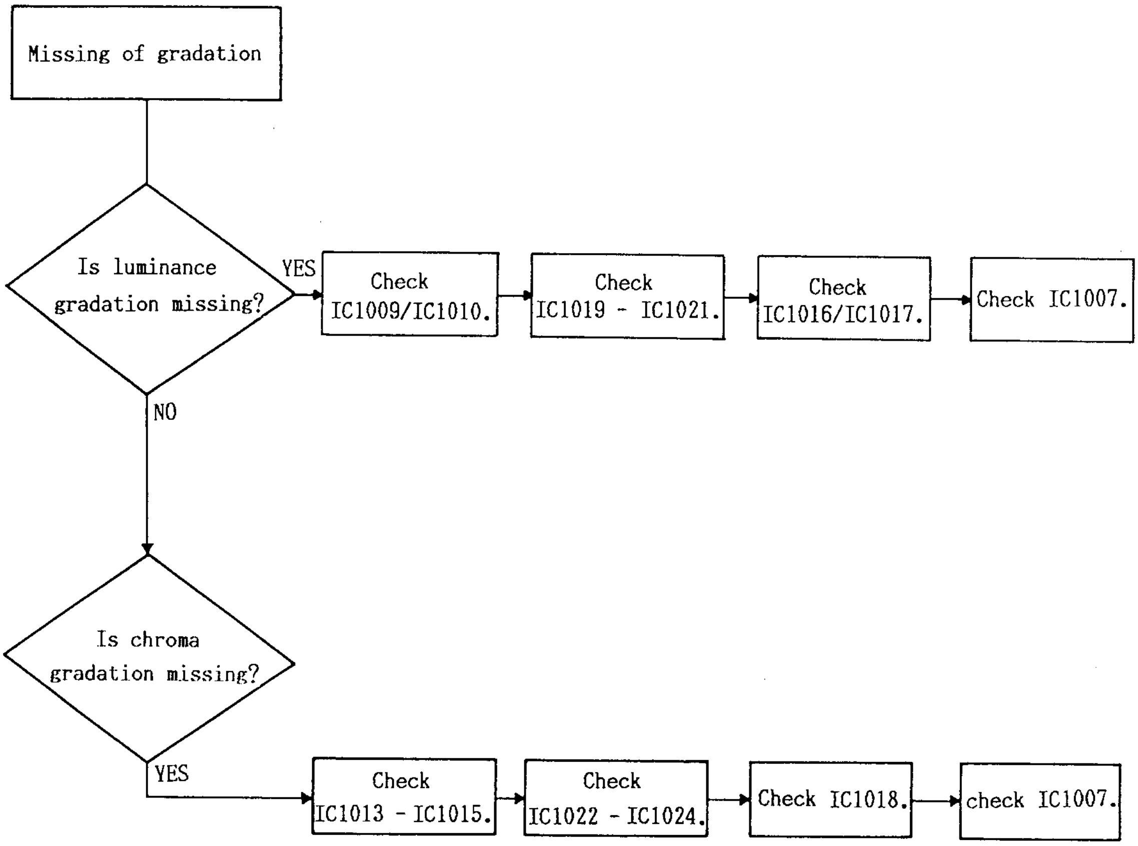
5.


Horizontal sync distortion
Is sync of sub picture including the edges distorted in P in P mode?
YES
NO
Are IC1002 pins 5 and 4 synchronized?
NO
YES
Check IC1002 pins 3 - 13 and peripheral circuits.
Check Q1042/IC1007 and peripheral circuits.
Is sync of sub picture distorted in P in P mode?
YES
NO
Are IC1003 pins 11 and 9 synchronized?
NO
YES
Check IC1003 pins 4 - 14 and peripheral circuits.
Are IC1003 pin 9 and TP4 synchronized?
NO
YES
Check Q1191 - Q1194 and peripheral circuits.
Are IC1007 pin 1 and TP4 synchronized?
NO
YES
Check Q1029/Q1030 and peripheral circuits.
Check IC1007.
Is sync distorted in STOP MOTION mode?
YES
NO
Are IC1005 pins 8 and 15 synchronized?
NO
YES
Check IC1028/IC1007/Q1023 and peripheral circuits.
Check IC1007.
Is sync distorted in multi-picture mode?
YES
YES
PG1003 pin 4: 3V or more?
NO
YES
Check other P.C.Bs.
Check IC1030/IC1007.

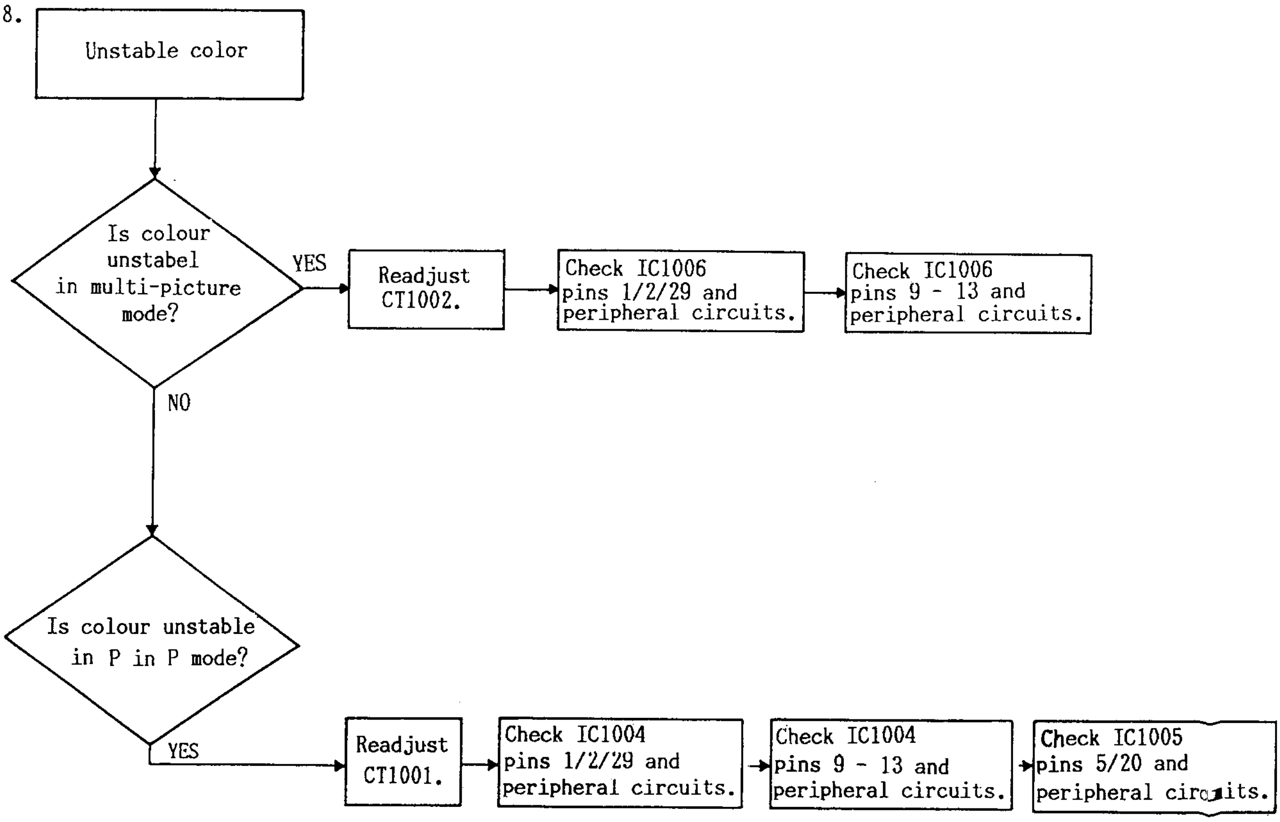
6.


Vertical sync distortion
Is sync of sub picture including the edges distorted in P in P mode ?
YES
NO
Are IC1002 pins 5 and 6 synchronized ?
NO
YES
Check IC1002 pins 3 - 9 and peripheral circuits.
Check Q1043/IC1007 and peripheral circuits.
Is sync of sub picture distorted in P in P mode ?
YES
NO
Are IC1003 pins 11 and 14 synchronized?
NO
YES
Check IC1003 pins 10 - 13 and peripheral circuits.
Check IC1007.
Is sync distorted in STOP MOTION mode?
YES
NO
Are IC1005 pins 8 and 15 synchronized?
NO
YES
Check IC1028/IC1007/Q1023 and peripheral circuits.
Check IC1007.
Is sync distorted in MULTI STROBE mode.
PG1003 pin 4: 3V or more?
NO
YES
Check other P.C.Bs.
Check IC1030/IC1007.

7.


Missing of gradation
Is luminance gradation missing?
YES
Check IC1009/IC1010.
Check IC1019 - IC1021.
Check IC1016/IC1017.
Check IC1007.
NO
Is chroma gradation missing?
YES
Check IC1013 - IC1015.
Check IC1022 - IC1024.
Check IC1018.
check IC1007.

8.


Unstable color
Is colour unstabel in multi-picture mode?
YES
Readjust CT1002.
Check IC1006 pins 1/2/29 and peripheral circuits.
Check IC1006 pins 9 - 13 and peripheral circuits.
NO
Is colour unstable in P in P mode?
YES
Readjust CT1001.
Check IC1004 pins 1/2/29 and peripheral circuits.
Check IC1004 pins 9 - 13 and peripheral circuits.
Check IC1005 pins 5/20 and peripheral circuits.

9. Others

P in P mode

Phenomenon	Circuit causing fault	Parts to be checked
Edges and picture drifted	Sub picture output pulse shaper	Q1038-39, R1141-45, C1177-78
Cross colour in edges	Edge chroma level	IC1013-1015
Sub picture flickering	Luminance D/A (IC1025)	R1175, D1007
Sub picture is not black without input	Sub picture AFC (IC1003)	Q1191-93, R1191-93, 96
Colour leaks without input for sub picture	Sub picture decoder (IC1006)	Q1194, R1197
Rise of EE channel switching	Main/sub clamp (IC1003)	R1173-74, C1037, C1123
Rise from memory recall	Main picture muting (IC1030)	R1194-95
Tint drifted at high temperature	Sub picture decoder (IC1006)	Q1012, R1051
Chroma level drifted at high temperature	Sub picture decoder (IC1006)	D1006, R1101
White balance drifted at high temperature	Sub picture encoder (IC1005)	R1026, R1054
Tint not adjustable	Sub picture decoder (IC1006)	R1024-25, C1183-84
Whole sub picture green	D/A (IC1025-27)	IC1025-27 (and peripheral circuits)

Multi-picture mode

Phenomenon	Circuit causing fault	Parts to be checked
V sync missing in sub picture	IF μp (IC1008)	IC1008 (and peripheral circuits)
Edge positions not aligned	IF μp (IC1008)	IC1008 (and peripheral circuits)
Vertical white noise	Memory (IC1016-18)	IC1016-18 (ICs already changed)
Colours of 4/16 pictures not matched	Gate array (IC1007)	Q1025, 36, 52, C1175, R1022, 1126-28

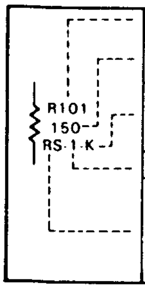
STOP MOTION mode

Phenomenon	Circuit causing fault	Parts to be checked
Skew across top of picture	Sub picture AFC (IC1003)	R1032-34, C1010-11
White dot noise at high temperature	Luminance A/D (IC1011)	C1194-95
ID misjudging at high temperature	Decoder (IC1006, 4)	R1081, 1140

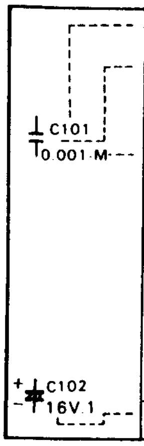
SCHEMATIC/CIRCUIT BOARD DIAGRAM

Note

1. Voltage measured at base of chassis with minimum volume control and no signal.
   ( ) are shown in recording condition
2. Nomenclature of Resistors and Capacitors.



Circuit No.	
Value	No indicated Ω (Ohm) M : 1000kΩ
Tolerance	No indicated ± 5% K : ± 10% M : ± 20%
Wattage	No indicated ¼ W
Sort	No indicated Carbon film RC : Composition RW : Wire wound RS : Oxide metal film RN : Fixed metal film

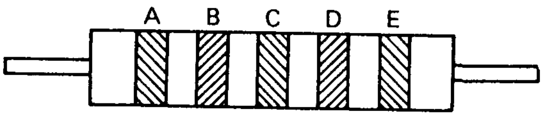


Circuit No.		
Value	No indicated μF P : PF	
Tolerance	No indicated ± 10% J : ± 5% M : ± 20% Z : + 80%, − 20% D : ± 0.5pF C : ± 0.25pF	
Sort		Ceramic
	+ −	Electrolitic
	M	Mylar
	P	Polyester
	S	Styrol
Voltage	No indicated 50WV	

3. Be sure to make your orders of resistors and capacitors with value, voltage, tolerance and sort.
4. When replacing capacitors marked with * use specified ones stated on parts list since required temperature characteristics.

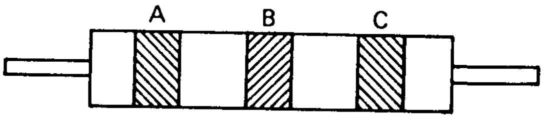
HOW TO READ CAPACITY AND INDUCTANCE OF RESISTOR SHAPE CAPACITORS AND COILS

CAPACITOR



CAPACITY: (10A+B)xC [PF]
TOLERANCE: D
RATED VOLTAGE: BODY COLOR
Pink: 25V
Green: 50V
CHARACTERISTICS: E

COIL



INDUCTANCE: (10A+B)xC [μH]

COLOR	A, B	C	D	E
Black	0	10^0	±20%	For temperature compensation
Brown	1	10^1		
Red	2	10^2		
Orange	3	10^3		
Yellow	4	10^4		
Green	5	10^5		
Blue	6			
Violet	7			
Grey	8		±30%	High dielectric constant type
White	9			For temperature compensation
Gold		10^{-1}	± 5%	
Silver		10^{-2}	±10%	High dielectric constant type

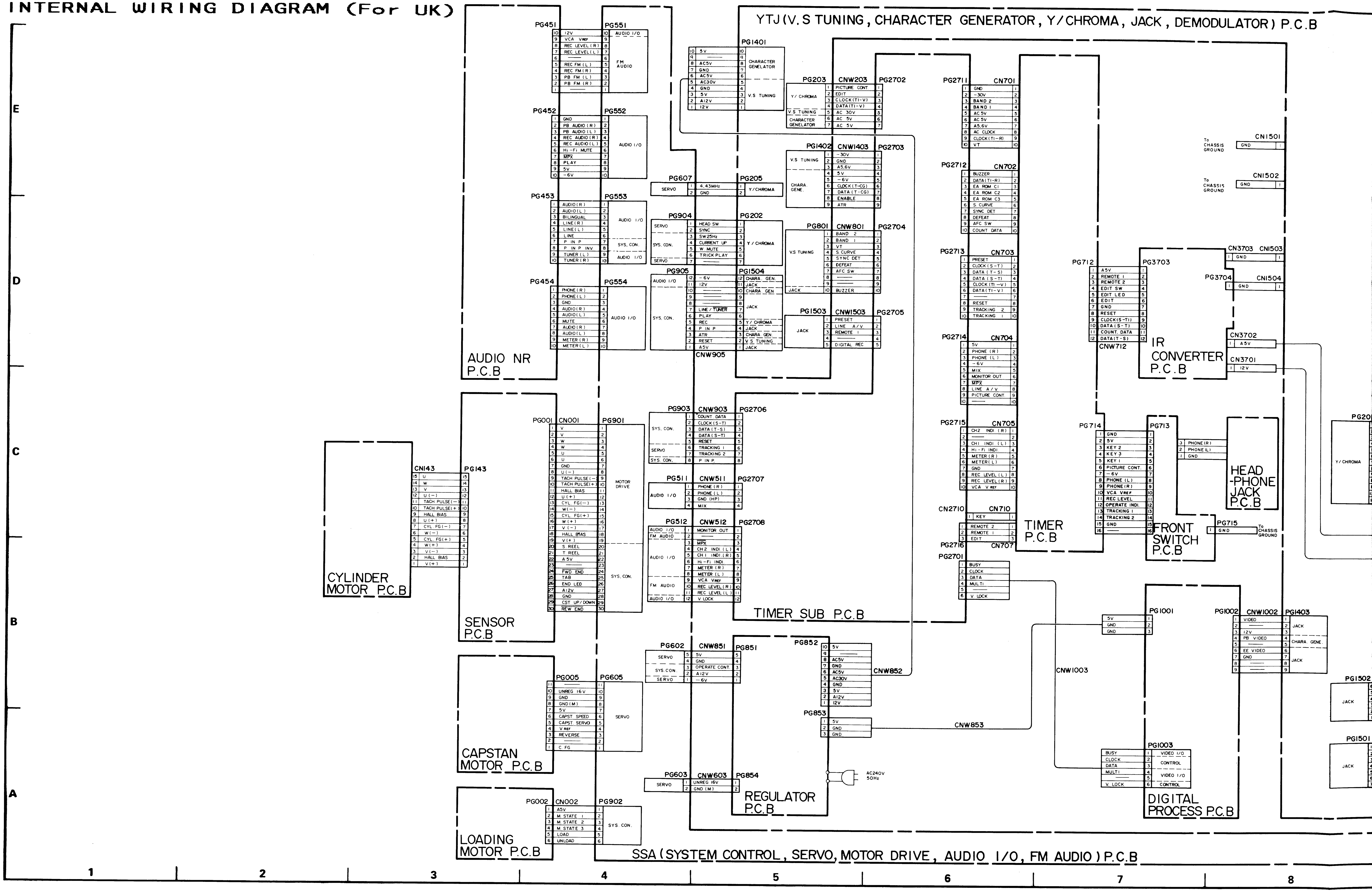
Cautions on use of MOS IC

1. The MOS IC is inserted in black foam for shipment. This foam is a conductor which short-circuits between the leads to prevent damage. Do not remove ICs from this foam during their storage. Avoid removing ICs from this foam, placing them on plastic which is likely to be charged with static electricity or inserting them into styrol foam.
2. High voltages may be applied during soldering caused by leakages from the soldering iron, so be sure to ground the tip of the soldering iron or use a low voltage soldering iron.
3. The human body, clothes made of synthetic fibres or nylon gloves may be charged with several thousands volts of static electricity because of friction, so a worker should be grounded.
4. Be sure to ground measuring instruments such as oscilloscopes, VTVMs, etc. used for repairs.

ABBREVIATIONS OF DIGITAL PROCESS CIRCUIT

ADC B-Y	Analog to Digital Converted B-Y Signal
ADC R-Y	Analog to Digital Converted R-Y Signal
ADC Y	Analog to Digital Converted Luminance Signal
ADRS	Address
CAS	Column Address Strobe
C. BLANK	Chroma Blanking
DRAM	Dynamic Random Access Memory
DEMPX	Demultiplexer
DWC	Delayed Write Clock
DT/OE	Date Transfer/Output Enable
D. REF25	Delayed Reference 25Hz
D. SW25	Delayed Switching 25Hz
INC	Row Counter Increment
MEM	Memory
MEM VIDEO	Memorized Video
MEM SW	Memory Switch
MEM ON	Memory ON
MPX	Multiplexer
MPX VIDEO	Multiplexed Video
O/E	Odd/Even Field
P IN P	Picture in Picture
PIX MOVE	Picture Move
RC	Reading Clock
RCC	Reading Clock Clear
RCR	Row Counter Reset
RAS	Row Address Strobe
REF25	Reference 25Hz from servo circuit
RFL	Refresh Control
SC	Serial Control
WC	Write Clock
WCC	Write Clock Clear
WE	Write Enable
WRITE ENBL	Write Enable

INTERNAL WIRING DIAGRAM (For UK)


YTJ (V. S TUNING, CHARACTER GENERATOR, Y/CHROMA, JACK, DEMODULATOR) P.C.B
SSA (SYSTEM CONTROL, SERVO, MOTOR DRIVE, AUDIO I/O, FM AUDIO) P.C.B
AUDIO NR P.C.B
SENSOR P.C.B
CYLINDER MOTOR P.C.B
CAPSTAN MOTOR P.C.B
LOADING MOTOR P.C.B
TIMER SUB P.C.B
REGULATOR P.C.B
TIMER P.C.B
IR CONVERTER P.C.B
FRONT SWITCH P.C.B
HEAD-PHONE JACK P.C.B
DIGITAL PROCESS P.C.B
PG451
PG551
PG452
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PG453
PG553
PG454
PG554
PG1401
PG203
CNW203
PG2702
PG1402
CNW1403
PG2703
PG607
PG205
PG904
PG202
PG801
CNW801
PG2704
PG905
PG1504
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PG2712
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PG2714
CN704
PG2715
CN705
CN2710
CN710
PG2716
CN707
PG2701
PG712
CNW712
PG3703
PG3704
CN3703
CN1503
CN1504
CN3702
CN3701
CN1501
CN1502
To CHASSIS GROUND
PG714
PG713
PG715
PG001
CN001
PG901
MOTOR DRIVE
SYS. CON.
CN143
PG143
PG903
CNW903
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CNW511
PG2707
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CNW512
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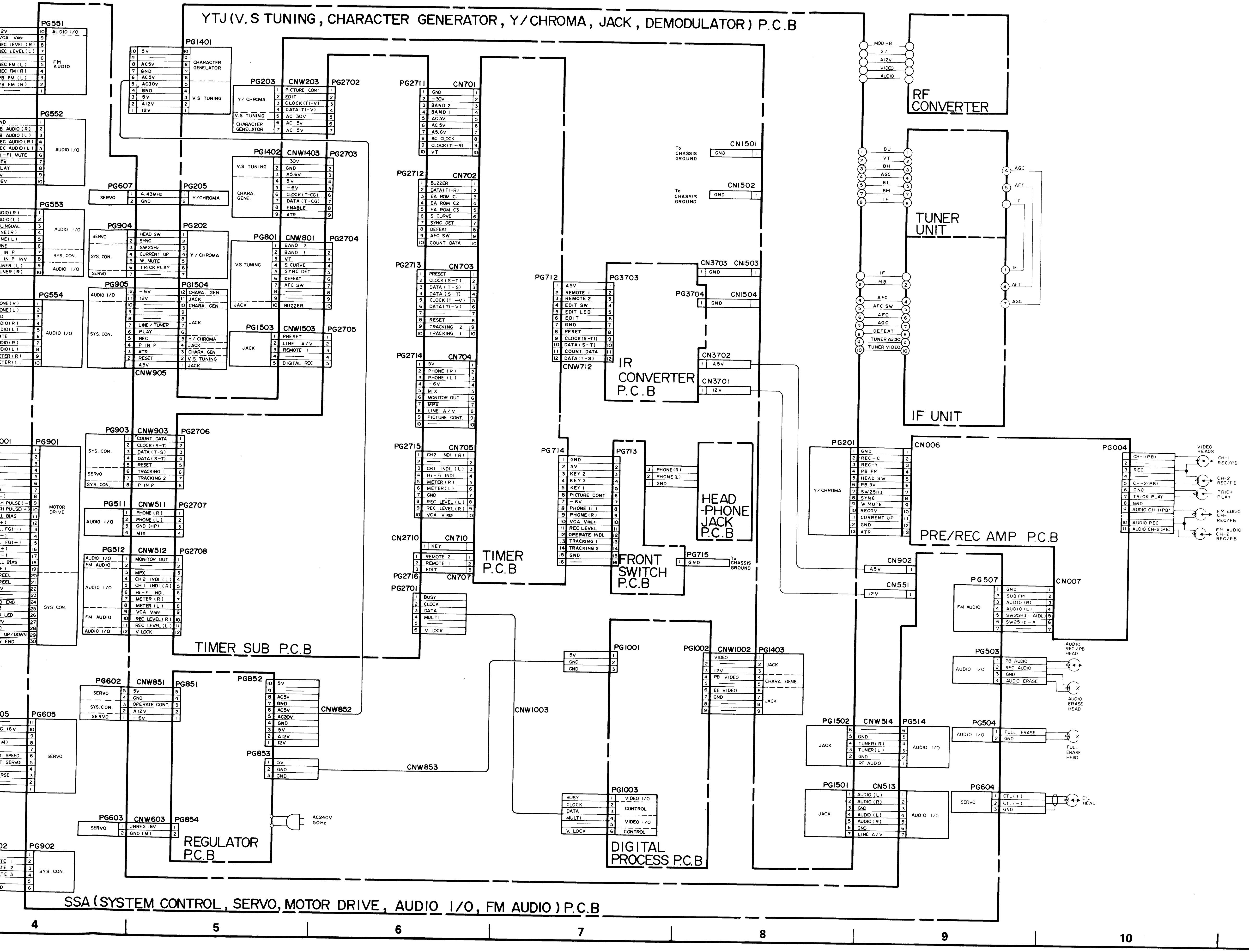
PG005
PG605
SERVO
PG602
CNW851
PG851
PG852
CNW852
PG853
CNW853
CNW1003
PG603
CNW603
PG854
AC240V 50Hz
PG002
CN002
PG902
PG1001
PG1002
CNW1002
PG1403
PG1003
PG1502
PG1501
PG20
12V
VCA VREF
REC LEVEL (R)
REC LEVEL (L)
REC FM (L)
REC FM (R)
PB FM (L)
PB FM (R)
AUDIO I/O
FM AUDIO
GND
PB AUDIO (R)
PB AUDIO (L)
REC AUDIO (R)
REC AUDIO (L)
Hi-Fi MUTE
MPX
PLAY
5V
-6V
AUDIO (R)
AUDIO (L)
BILINGUAL
LINE (R)
LINE (L)
LINE
P IN P
P IN P INV
TUNER (L)
TUNER (R)
PHONE (R)
PHONE (L)
MUTE
METER (R)
METER (L)
CHARACTER GENELATOR
V.S TUNING
Y/CHROMA
JACK
CHARA GEN
AC5V
AC30V
A12V
PICTURE CONT
EDIT
CLOCK (TI-V)
DATA (TI-V)
AC 30V
AC 5V
-30V
A5.6V
CLOCK (T-CG)
DATA (T-CG)
ENABLE
ATR
4.43MHz
HEAD SW
SYNC
SW25Hz
CURRENT UP
W. MUTE
TRICK PLAY
BAND 2
BAND 1
VT
S. CURVE
SYNC DET
DEFEAT
AFC SW
BUZZER
LINE/TUNER
REC
P IN P
RESET
A5V
PRESET
LINE A/V
REMOTE 1
DIGITAL REC
AC CLOCK
CLOCK (TI-R)
DATA (TI-R)
EA ROM C1
EA ROM C2
EA ROM C3
S. CURVE
COUNT DATA
CLOCK (S-T)
DATA (T-S)
DATA (S-T)
CLOCK (TI-V)
DATA (TI-V)
TRACKING 2
TRACKING 1
MIX
MONITOR OUT
LINE A/V
CH2 INDI (R)
CH1 INDI (L)
Hi-Fi INDI
REC LEVEL (L)
REC LEVEL (R)
KEY
REMOTE 2
BUSY
CLOCK
DATA
MULTI
V. LOCK
REMOTE 1
REMOTE 2
EDIT SW
EDIT LED
COUNT. DATA
KEY 2
KEY 3
KEY 1
PICTURE CONT.
OPERATE INDI.
REC LEVEL
U
V
W
TACH PULSE (-)
TACH PULSE (+)
HALL BIAS
CYL FG (-)
CYL FG (+)
S. REEL
T. REEL
FWD END
TAB
END LED
CST UP/DOWN
REW END
COUNT DATA
GND (HP)
CH2 INDI (L)
CH1 INDI (R)
V. LOCK
UNREG 16V
GND (M)
CAPST SPEED
CAPST SERVO
VREF
REVERSE
C FG
OPERATE CONT.
A5V
M. STATE 1
M. STATE 2
M. STATE 3
LOAD
UNLOAD
VIDEO
PB VIDEO
EE VIDEO
VIDEO I/O
CONTROL
CHARA GENE
1
2
3
4
5
6
7
8
A
B
C
D
E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RF CONVERTER
TUNER UNIT
IF UNIT
IR CONVERTER P.C.B
HEAD -PHONE JACK P.C.B
FRONT SWITCH P.C.B
TIMER P.C.B
TIMER SUB P.C.B
PRE/REC AMP P.C.B
REGULATOR P.C.B
DIGITAL PROCESS P.C.B
SSA (SYSTEM CONTROL, SERVO, MOTOR DRIVE, AUDIO I/O, FM AUDIO) P.C.B
AC240V 50Hz
VIDEO HEADS
CH-1 REC/PB
CH-2 REC/PB
TRICK PLAY
FM AUDIO CH-1 REC/PB
FM AUDIO CH-2 REC/PB
AUDIO REC/PB HEAD
AUDIO ERASE HEAD
FULL ERASE HEAD
CTL HEAD
To CHASSIS GROUND
4
5
6
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10
11
12

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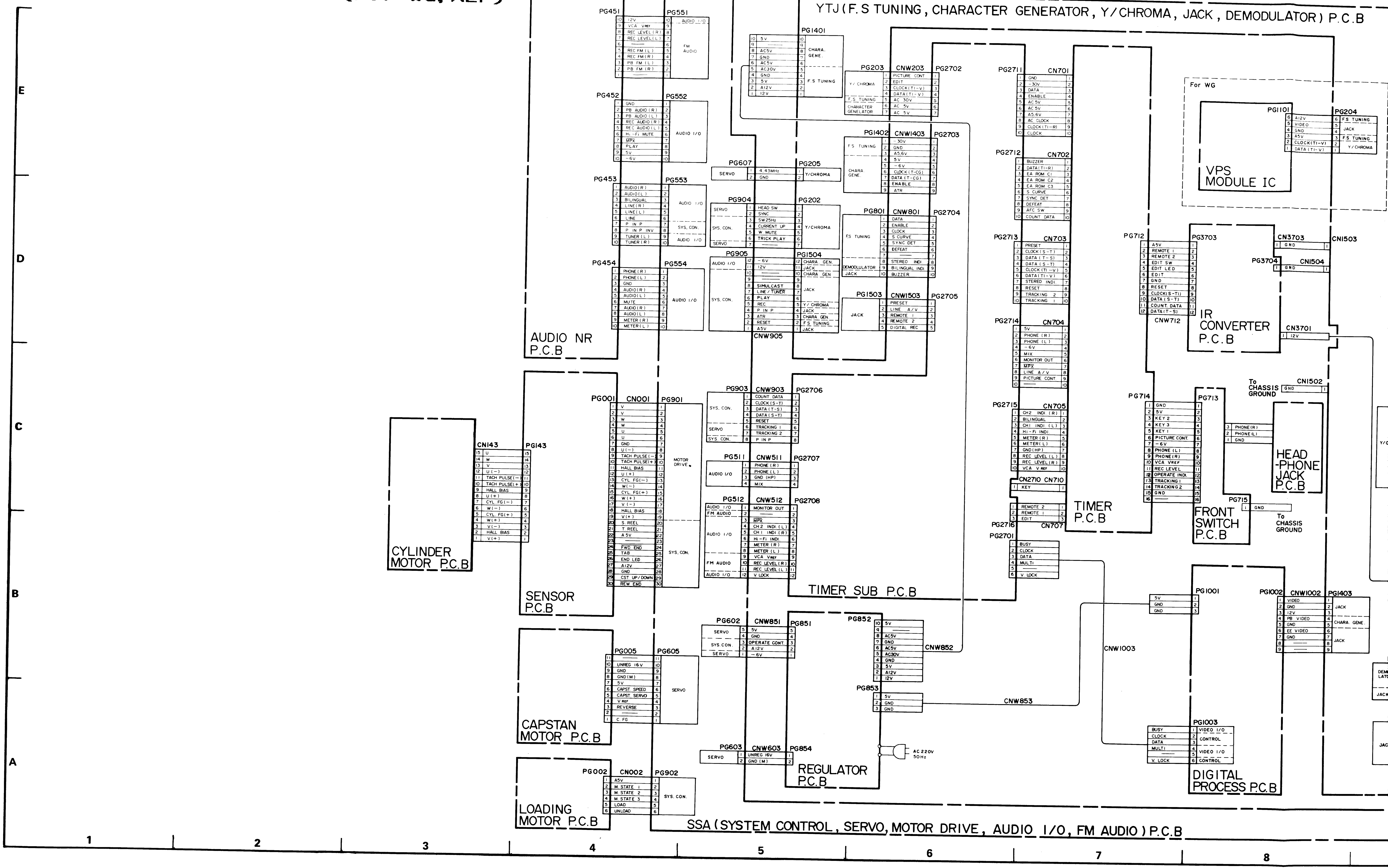
INTERNAL WIRING DIAGRAM (For WG, AEP)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F.S TUNING
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PG2702
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CHARACTER GENERATOR
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CNW1403
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SERVO
4.43MHz
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SYS. CON.
HEAD SW
SYNC
SW25Hz
CURRENT UP
W. MUTE
TRICK PLAY
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JACK
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PG2701
TIMER P.C.B
For WG
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To CHASSIS GROUND
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CAPSTAN MOTOR P.C.B
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PG852
CNW852
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CNW853
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CNW603
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REGULATOR P.C.B
AC 220V 50Hz
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PG1002
CNW1002
PG1403
PG1003
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LOADING MOTOR P.C.B
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CN002
PG902
SSA (SYSTEM CONTROL, SERVO, MOTOR DRIVE, AUDIO I/O, FM AUDIO) P.C.B
A
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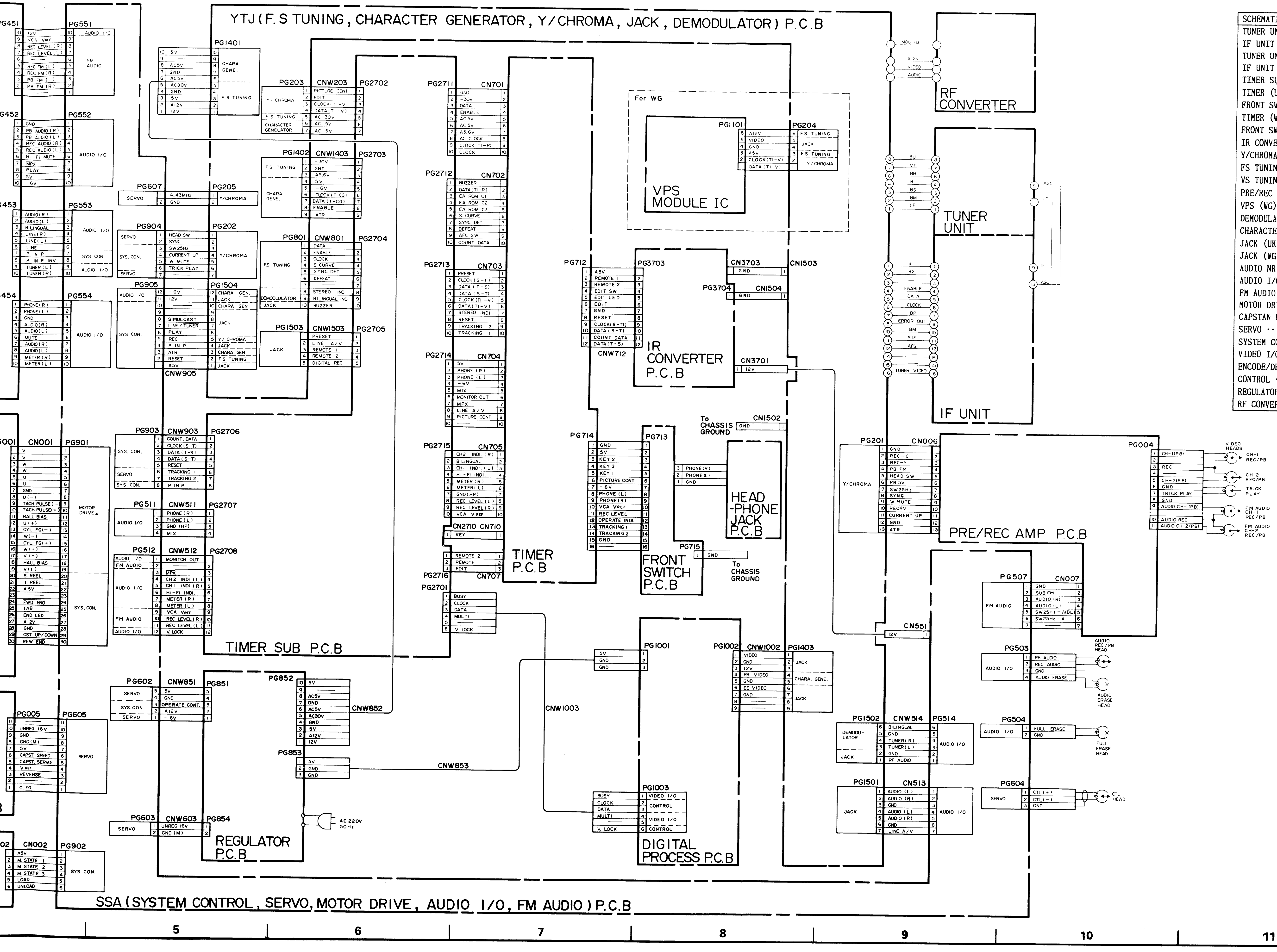
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TIMER SUB P.C.B
TIMER P.C.B
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FRONT SWITCH P.C.B
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REGULATOR P.C.B
DIGITAL PROCESS P.C.B
PRE/REC AMP P.C.B
RF CONVERTER
TUNER UNIT
IF UNIT
For WG
VPS MODULE IC
PG451
PG551
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PG713
PG715
To CHASSIS GROUND
CN1502
PG1101
PG204
PG1001
PG1002
CNW1002
PG1403
PG1003
PG201
CN006
PG004
VIDEO HEADS
CH-1 REC/PB
CH-2 REC/PB
TRICK PLAY
FM AUDIO CH-1 REC/PB
FM AUDIO CH-2 REC/PB
CN551
PG507
CN007
AUDIO REC/PB HEAD
PG503
AUDIO ERASE HEAD
PG504
FULL ERASE HEAD
PG1502
CNW514
PG514
PG1501
CN513
PG604
CTL HEAD
MOTOR DRIVE
SERVO
SYS. CON.
AUDIO I/O
FM AUDIO
Y/CHROMA
F.S TUNING
CHARA. GENE.
JACK
DEMODULATOR
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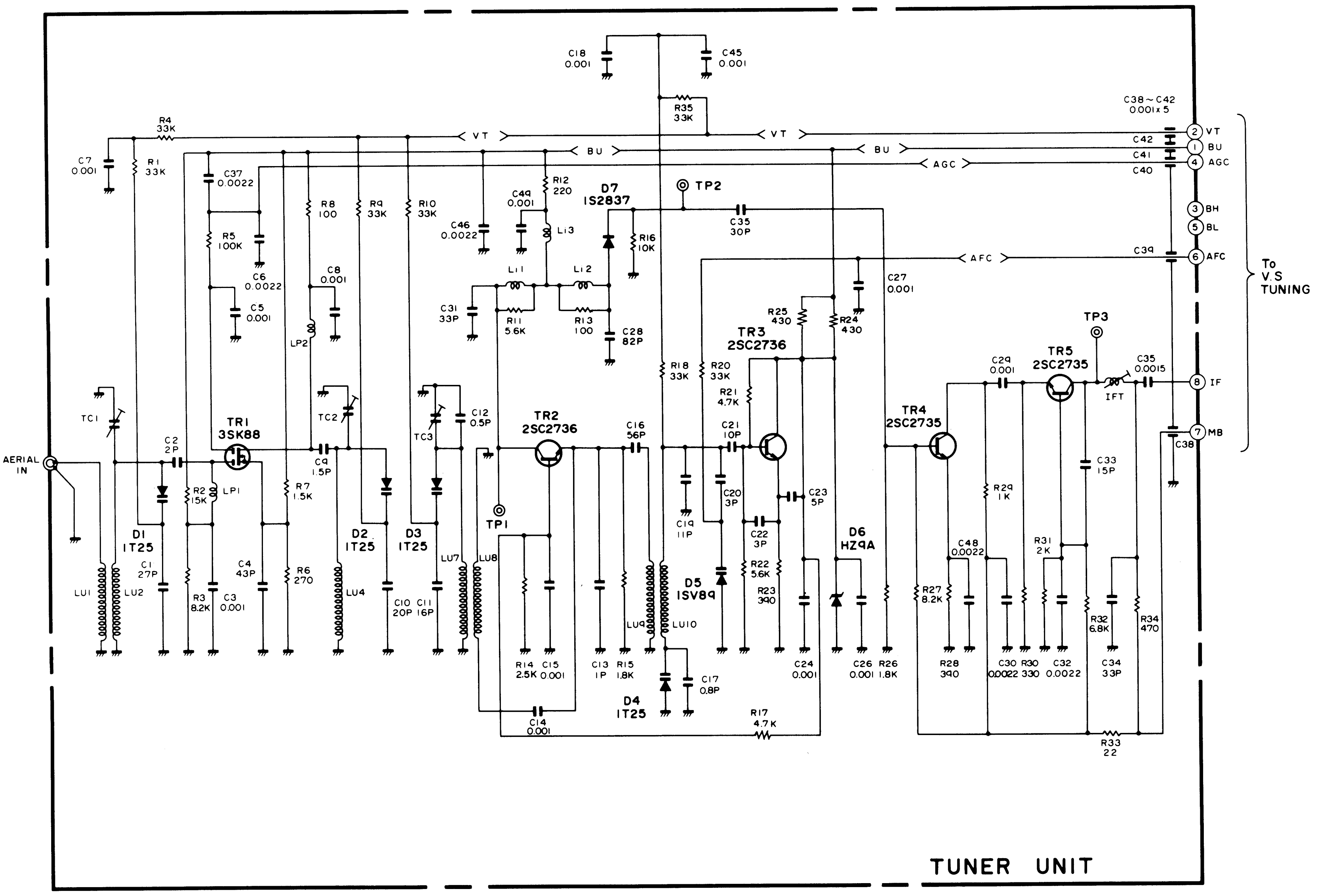
TUNER UNIT (UK) 5-9 5-10 IF UNIT (UK)

TUNER UNIT (UK)



TUNER UNIT
AERIAL IN
TC1
LU1
LU2
C1 27P
C2 2P
D1 1T25
R2 15K
LP1
TR1 3SK88
R1 33K
R4 33K
C7 0.001
R3 8.2K
C3 0.001
C4 43P
C37 0.0022
R5 100K
C6 0.0022
C5 0.001
LP2
R7 1.5K
R6 270
R8 100
C8 0.001
TC2
C9 1.5P
D2 1T25
LU4
R9 33K
R10 33K
C10 20P
C11 16P
TC3
D3 1T25
C12 0.5P
LU7
LU8
TP1
C46 0.0022
C31 33P
L11
R11 5.6K
C49 0.001
R12 220
L13
L12
R13 100
C28 82P
D7 1S2837
R16 10K
TR2 2SC2736
R14 2.5K
C15 0.001
C14 0.001
C13 1P
R15 1.8K
C16 56P
LU9
LU10
D4 1T25
C17 0.8P
C18 0.001
C45 0.001
R35 33K
R18 33K
TP2
C35 30P
C19 11P
R20 33K
R21 4.7K
C21 10P
C20 3P
D5 1SV89
C22 3P
R22 5.6K
R23 390
C23 5P
TR3 2SC2736
R25 430
R24 430
C24 0.001
R17 4.7K
D6 HZ9A
C27 0.001
C26 0.001
R26 1.8K
TR4 2SC2735
R27 8.2K
R28 390
C48 0.0022
R29 1K
C29 0.001
C30 0.0022
R30 330
TR5 2SC2735
R31 2K
C32 0.0022
C33 15P
TP3
IFT
C35 0.0015
C34 33P
R32 6.8K
R34 470
R33 22
C38
C38~C42 0.001x5
C42
C41
C40
C39
VT
BU
AGC
AFC
① BU
② VT
③ BH
④ AGC
⑤ BL
⑥ AFC
⑦ MB
⑧ IF
To V.S TUNING
A
B
C
D
E
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3
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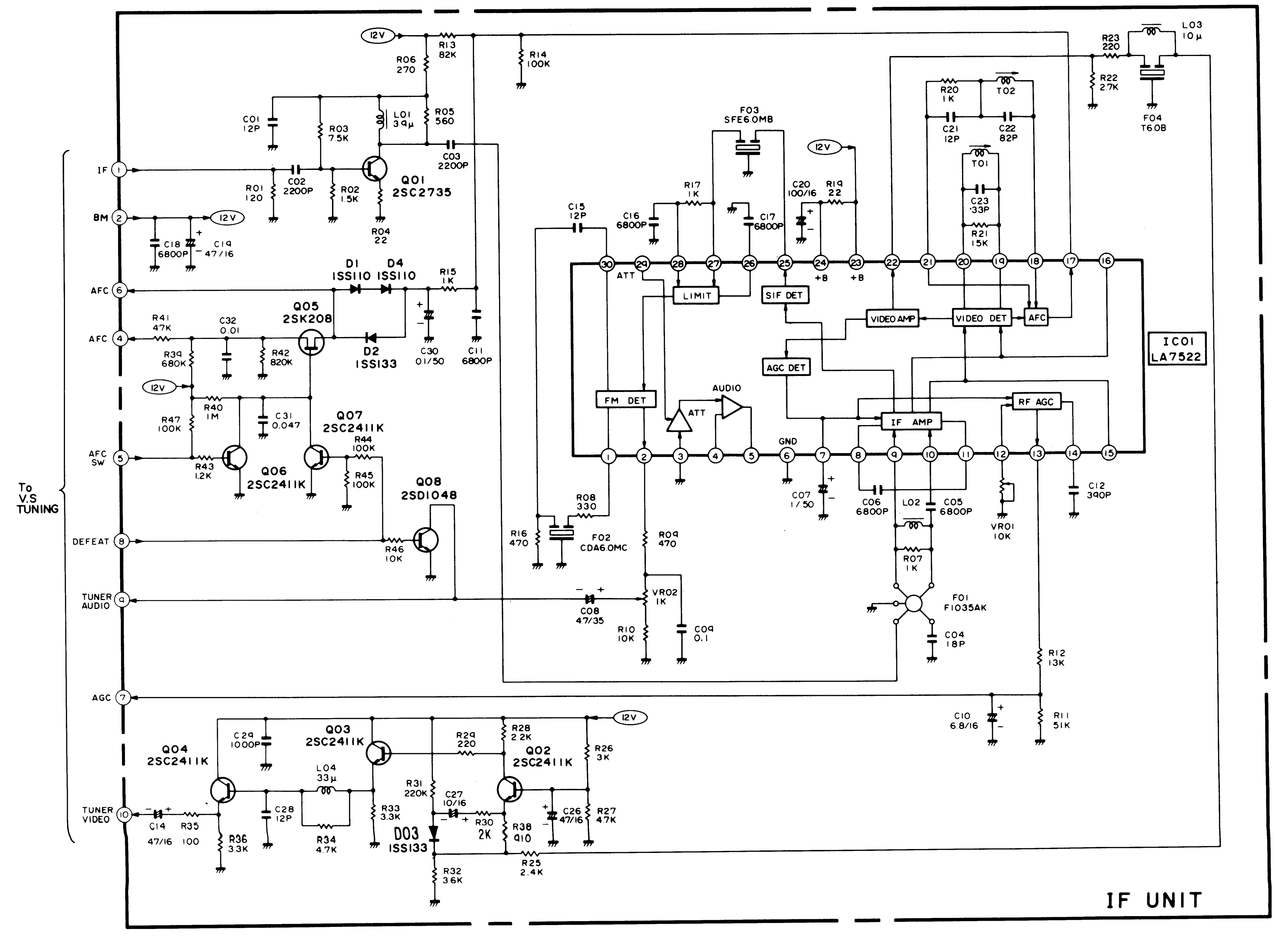
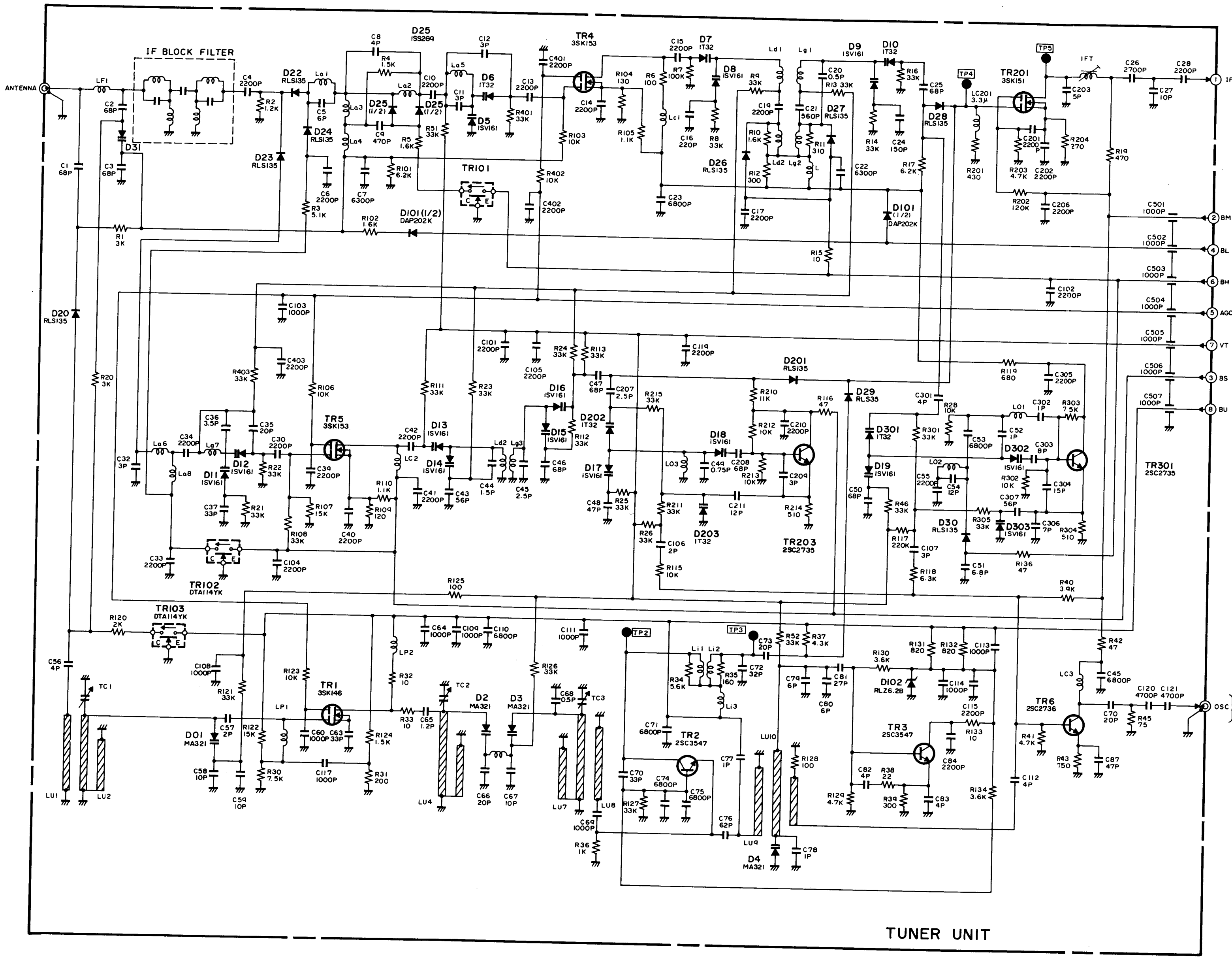
IF UNIT (UK)

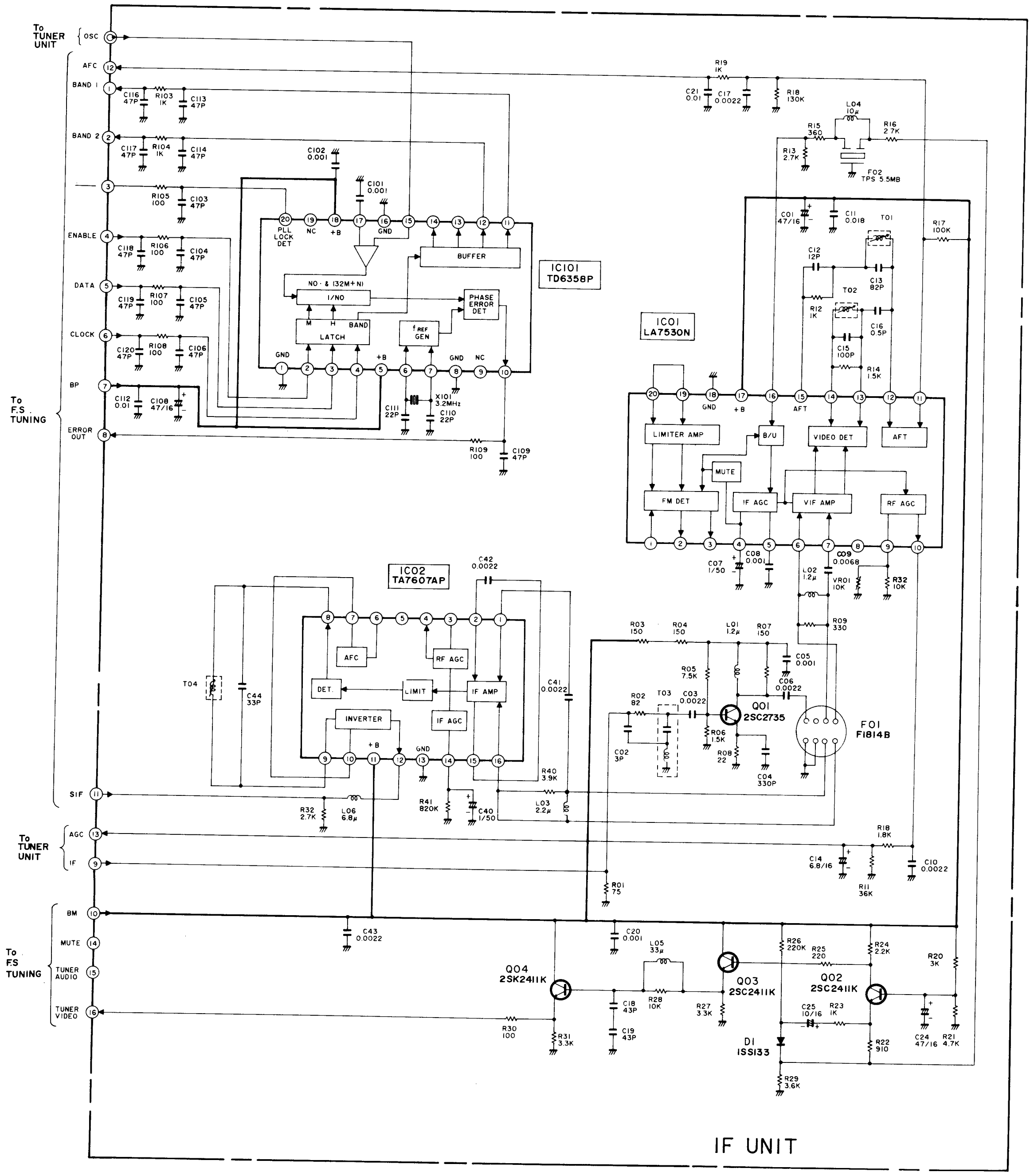


IF UNIT
① IF
② BM
⑥ AFC
④ AFC
⑤ AFC SW
⑧ DEFEAT
⑨ TUNER AUDIO
⑦ AGC
⑩ TUNER VIDEO
To V.S TUNING
12V
R06 270
R13 82K
R14 100K
C01 12P
R03 7.5K
L01 39μ
R05 560
C03 2200P
R01 120
C02 2200P
R02 1.5K
Q01 2SC2735
R04 22
C18 6800P
C19 47/16
D1 1SS110
D4 1SS110
R15 1K
Q05 2SK208
R41 47K
C32 0.01
R39 680K
R42 820K
D2 1SS133
C30 01/50
C11 6800P
R40 1M
C31 0.047
R47 100K
Q07 2SC2411K
R44 100K
R43 1.2K
Q06 2SC2411K
R45 100K
Q08 2SD1048
R46 10K
C08 47/35
VR02 1K
R10 10K
C09 0.1
R09 470
R16 470
R08 330
F02 CDA6.0MC
C15 12P
C16 6800P
R17 1K
F03 SFE6.0MB
C17 6800P
C20 100/16
R19 22
+B
ATT
LIMIT
SIF DET
FM DET
AUDIO
AGC DET
GND
VIDEO AMP
VIDEO DET
AFC
IF AMP
RF AGC
IC01 LA7522
C07 1/50
C06 6800P
L02
C05 6800P
R07 1K
F01 F1035AK
C04 18P
VR01 10K
C12 390P
R12 13K
C10 6.8/16
R11 51K
R20 1K
T02
C21 12P
C22 82P
T01
C23 33P
R21 15K
R23 220
R22 2.7K
L03 10μ
F04 T608
C29 1000P
Q04 2SC2411K
Q03 2SC2411K
L04 33μ
C28 12P
C14 47/16
R35 100
R36 3.3K
R34 4.7K
R33 3.3K
D03 1SS133
R29 220
R28 2.2K
Q02 2SC2411K
R31 220K
C27 10/16
R30 2K
R38 910
R26 3K
C26 47/16
R27 4.7K
R25 2.4K
R32 3.6K
5
6
7
8

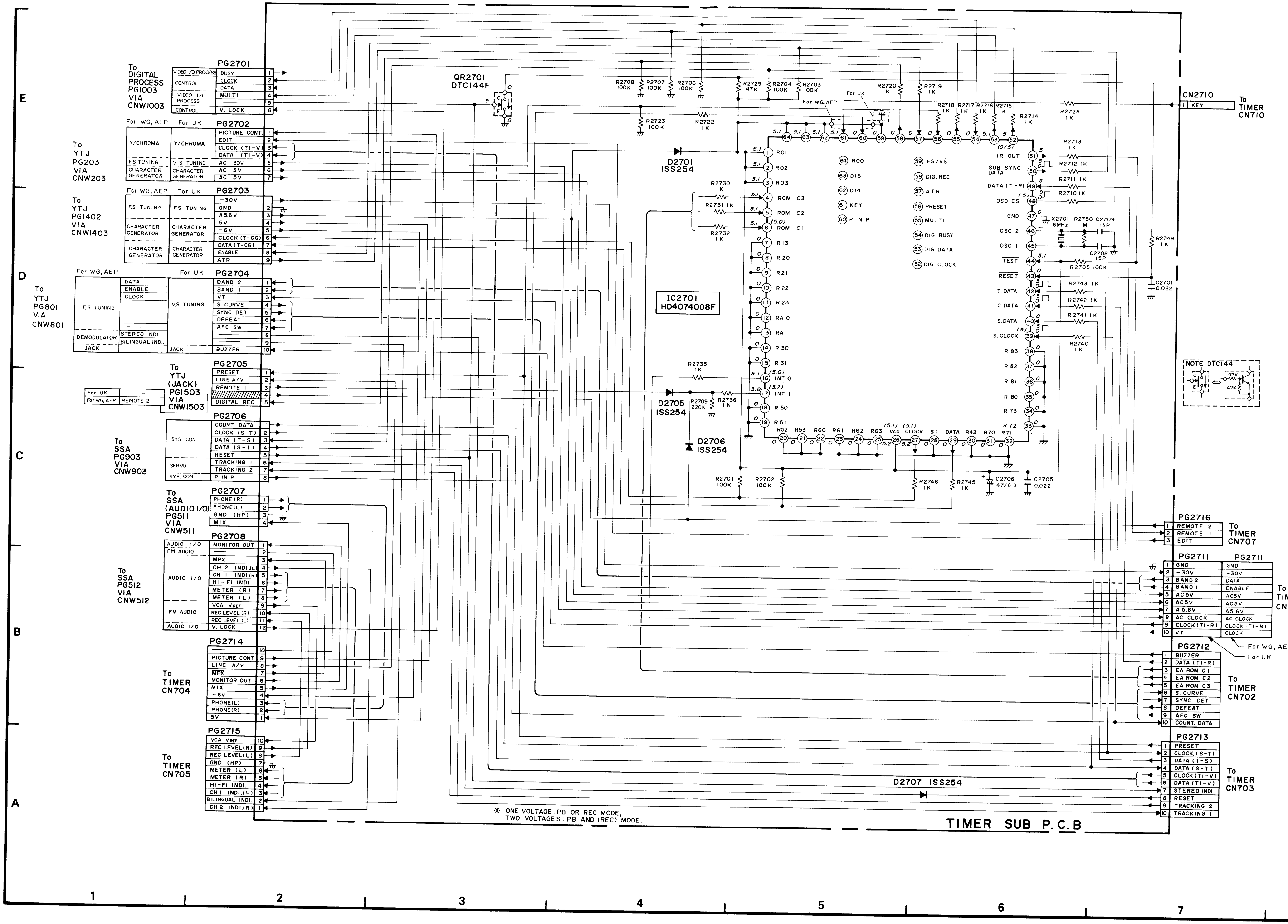
TUNER UNIT (For WG, AEP)

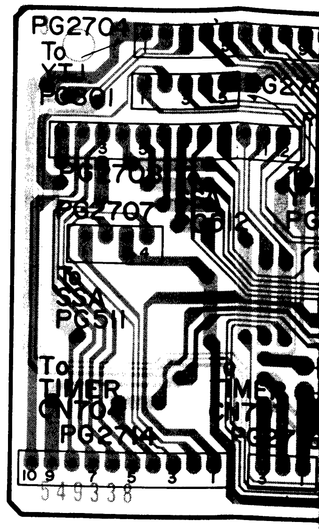

ANTENNA
IF BLOCK FILTER
TR101
TR102 DTA114YK
TR103 DTA114YK
TR1 3SK146
TR2 2SC3547
TR3 2SC3547
TR4 3SK153
TR5 3SK153
TR6 2SC2736
TR201 3SK151
TR203 2SC2735
TR301 2SC2735
D101 (1/2) DAP202K
D201 RLS135
D203 1T32
IFT
TP2
TP3
TP4
TP5
IF
BM
BL
BH
AGC
VT
BS
BU
To F.S TUNING
OSC
To IF UNIT
LU1
LU2
LU4
LU7
LU8
LU9
LU10
TC1
TC2
TC3
TUNER UNIT

IF UNIT (For WG, AEP)


To TUNER UNIT
OSC
AFC
BAND 1
BAND 2
ENABLE
DATA
CLOCK
BP
ERROR OUT
To F.S TUNING
IC101 TD6358P
PLL LOCK DET
BUFFER
NO. & 132M+N1
1/NO
PHASE ERROR DET
LATCH
BAND
f REF GEN
X101 3.2MHz
IC01 LA7530N
LIMITER AMP
FM DET
MUTE
IF AGC
VIDEO DET
VIF AMP
AFT
RF AGC
F02 TPS 5.5MB
T01
T02
IC02 TA7607AP
AFC
DET
LIMIT
RF AGC
IF AMP
INVERTER
IF AGC
T03
T04
Q01 2SC2735
F01 F1814B
SIF
AGC
IF
To TUNER UNIT
BM
MUTE
TUNER AUDIO
TUNER VIDEO
To FS TUNING
Q002 2SC2411K
Q003 2SC2411K
Q004 2SK2411K
D1 1SS133
IF UNIT

TIMER SUB


E
D
C
B
A
1
2
3
4
5
6
7
8
To DIGITAL PROCESS PG1003 VIA CNW1003
PG2701
VIDEO I/O PROCESS
CONTROL
BUSY
CLOCK
DATA
MULTI
V. LOCK
To YTJ PG203 VIA CNW203
For WG, AEP
For UK
PG2702
Y/CHROMA
F.S TUNING
V.S TUNING
CHARACTER GENERATOR
PICTURE CONT.
EDIT
CLOCK (TI-V)
DATA (TI-V)
AC 30V
AC 5V
To YTJ PG1402 VIA CNW1403
PG2703
-30V
GND
A5.6V
5V
-6V
CLOCK (T-CG)
DATA (T-CG)
ENABLE
ATR
To YTJ PG801 VIA CNW801
PG2704
DEMODULATOR
JACK
STEREO INDI.
BILINGUAL INDI.
BAND 2
BAND 1
VT
S. CURVE
SYNC DET
DEFEAT
AFC SW
BUZZER
To YTJ (JACK) PG1503 VIA CNW1503
PG2705
PRESET
LINE A/V
REMOTE 1
DIGITAL REC
REMOTE 2
To SSA PG903 VIA CNW903
PG2706
SYS. CON
SERVO
COUNT. DATA
CLOCK (S-T)
DATA (T-S)
DATA (S-T)
RESET
TRACKING 1
TRACKING 2
P IN P
To SSA (AUDIO I/O) PG511 VIA CNW511
PG2707
PHONE (R)
PHONE (L)
GND (HP)
MIX
To SSA PG512 VIA CNW512
PG2708
AUDIO I/O
FM AUDIO
MONITOR OUT
MPX
CH 2 INDI.(L)
CH 1 INDI.(R)
HI-FI INDI.
METER (R)
METER (L)
VCA VREF
REC LEVEL (R)
REC LEVEL (L)
V. LOCK
To TIMER CN704
PG2714
PICTURE CONT.
LINE A/V
MPX
MONITOR OUT
MIX
-6V
PHONE(L)
PHONE(R)
5V
To TIMER CN705
PG2715
VCA VREF
REC LEVEL(R)
REC LEVEL(L)
GND (HP)
METER (L)
METER (R)
HI-FI INDI.
CH 1 INDI.(L)
BILINGUAL INDI.
CH 2 INDI.(R)
QR2701 DTC144F
D2701 1SS254
D2705 1SS254
D2706 1SS254
D2707 1SS254
IC2701 HD4074008F
R2708 100K
R2707 100K
R2706 100K
R2729 47K
R2704 100K
R2703 100K
R2720 1K
R2719 1K
R2718 1K
R2717 1K
R2716 1K
R2715 1K
R2714 1K
R2728 1K
R2723 100K
R2722 1K
R2730 1K
R2731 1K
R2732 1K
R2735 1K
R2709 220K
R2736 1K
R2713 1K
R2712 1K
R2711 1K
R2710 1K
R2750 1M
R2705 100K
R2743 1K
R2742 1K
R2741 1K
R2740 1K
R2749 1K
R2701 100K
R2702 100K
R2746 1K
R2745 1K
X2701 8MHz
C2709 15P
C2708 15P
C2701 0.022
C2706 47/6.3
C2705 0.022
For UK
For WG, AEP
R01
R02
R03
ROM C3
ROM C2
ROM C1
R13
R20
R21
R22
R23
RA 0
RA 1
R 30
R 31
INT 0
INT 1
R 50
R 51
R52
R53
R60
R61
R62
R63
Vcc
CLOCK
SI
DATA
R43
R70
R71
R 72
R 73
R 80
R 81
R 82
R 83
S. CLOCK
S.DATA
C.DATA
T. DATA
RESET
TEST
OSC 1
OSC 2
GND
OSD CS
DATA (TI-R)
SUB SYNC DATA
IR OUT
(64) R00
(63) D15
(62) D14
(61) KEY
(60) P IN P
(59) FS/VS
(58) DIG. REC
(57) ATR
(56) PRESET
(55) MULTI
(54) DIG BUSY
(53) DIG DATA
(52) DIG. CLOCK
CN2710
KEY
To TIMER CN710
NOTE: DTC144
47K
PG2716
REMOTE 2
REMOTE 1
EDIT
To TIMER CN707
PG2711
GND
-30V
BAND 2
BAND 1
AC 5V
AC5V
A 5.6V
AC CLOCK
CLOCK (TI-R)
VT
DATA
ENABLE
A5.6V
CLOCK
To TIMER CN701
For WG, AEP
For UK
PG2712
BUZZER
DATA (TI-R)
EA ROM C1
EA ROM C2
EA ROM C3
S. CURVE
SYNC DET
DEFEAT
AFC SW
COUNT. DATA
To TIMER CN702
PG2713
PRESET
CLOCK (S-T)
DATA (T-S)
DATA (S-T)
CLOCK (TI-V)
DATA (TI-V)
STEREO INDI.
RESET
TRACKING 2
TRACKING 1
To TIMER CN703
※ ONE VOLTAGE: PB OR REC MODE, TWO VOLTAGES: PB AND (REC) MODE.
TIMER SUB P.C.B

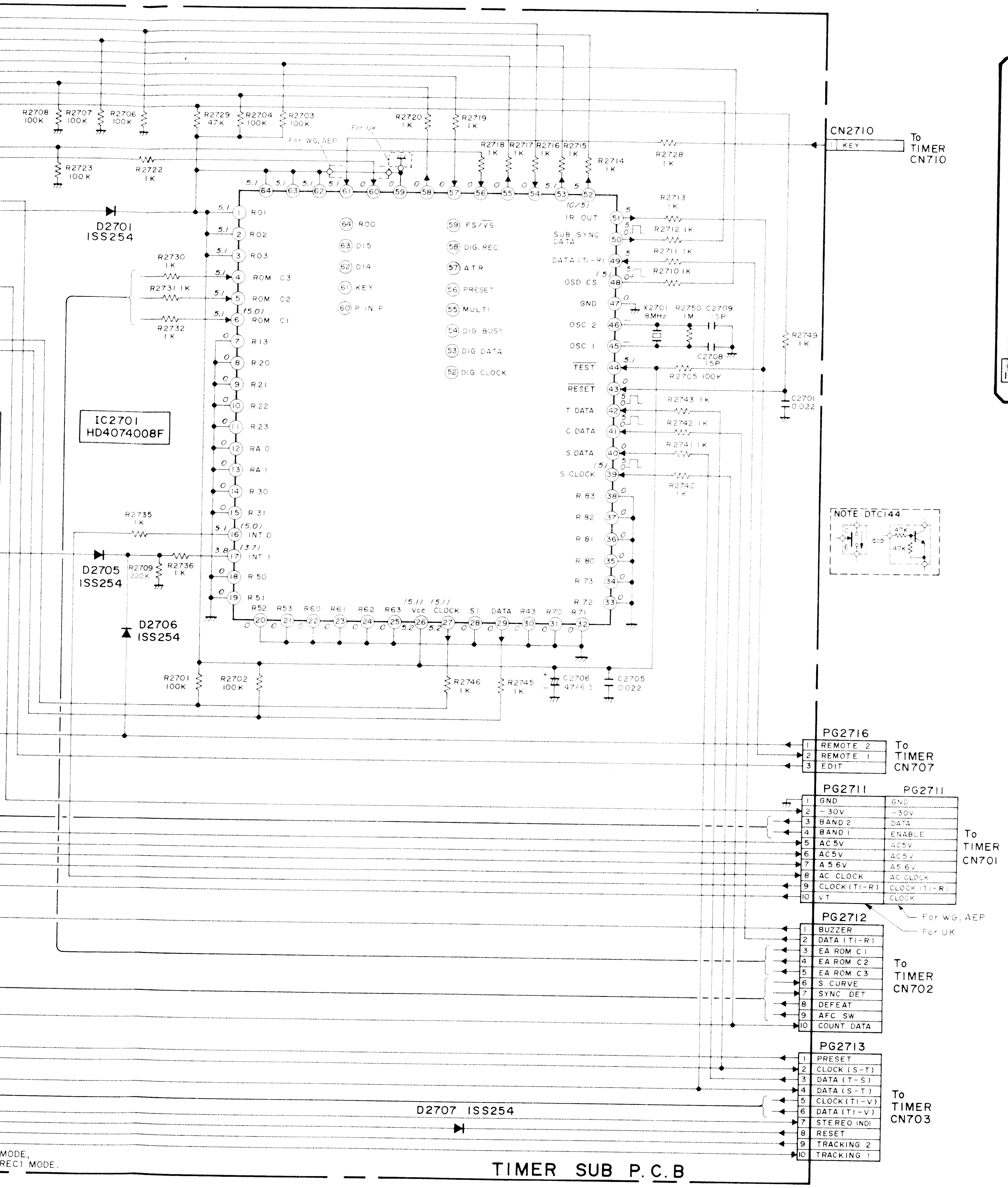

PG2701
To
PG2707
To SSA PG511
To TIMER
549338

TIMER

Component

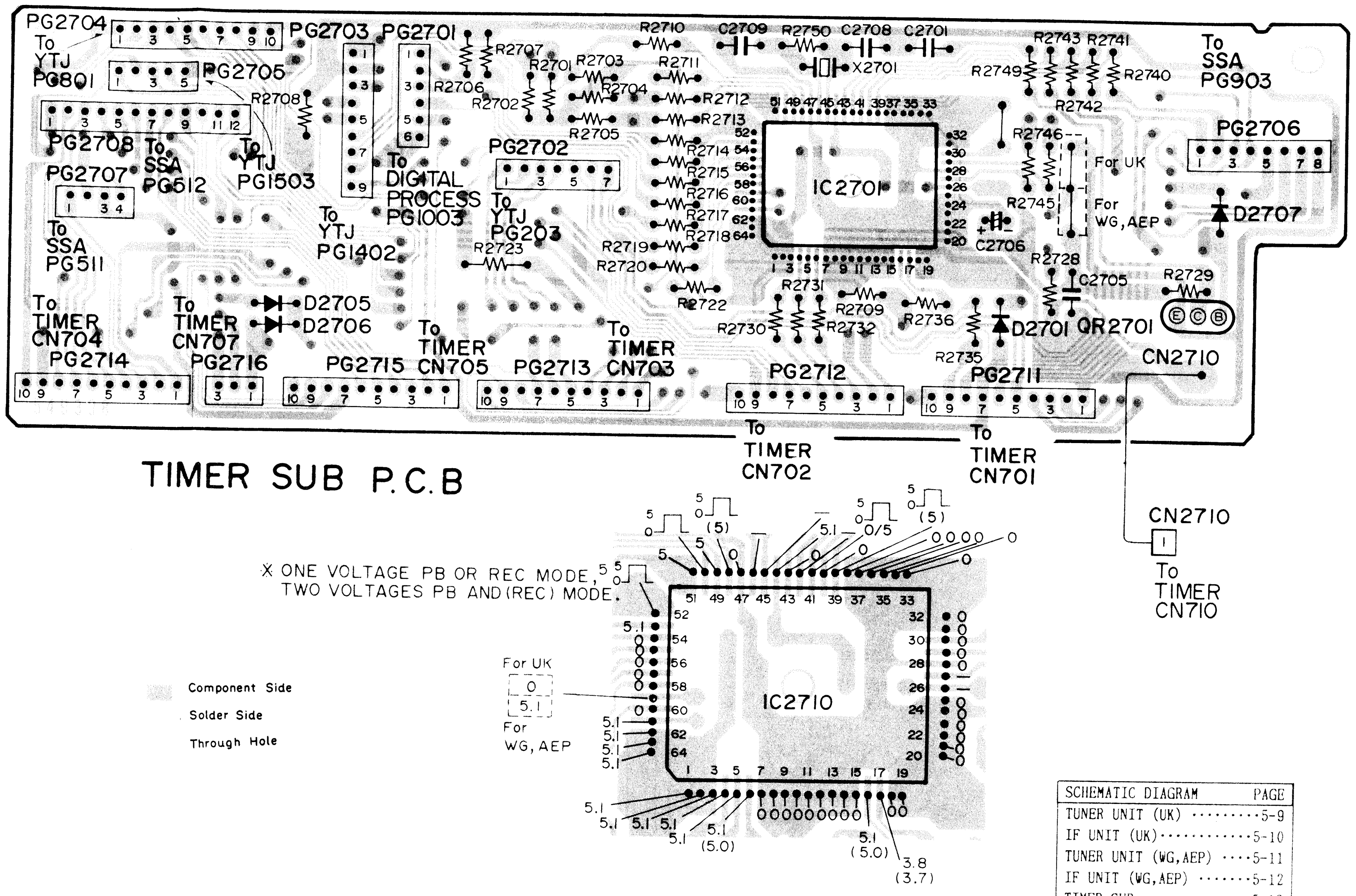
Solder Side

Through H


IC2701
HD4074008F
D2701 ISS254
D2705 ISS254
D2706 ISS254
D2707 ISS254
CN2710
KEY
To TIMER CN710
PG2716
REMOTE 2
REMOTE 1
EDIT
To TIMER CN707
PG2711
GND
-30V
BAND 2
BAND 1
AC 5V
AC 5V
A 5.6V
AC CLOCK
CLOCK (TI-R)
VT
DATA
ENABLE
To TIMER CN701
For WG, AEP
For UK
PG2712
BUZZER
DATA (TI-R)
EA ROM C1
EA ROM C2
EA ROM C3
S. CURVE
SYNC DET
DEFEAT
AFC SW
COUNT DATA
To TIMER CN702
PG2713
PRESET
CLOCK (S-T)
DATA (T-S)
DATA (S-T)
CLOCK (TI-V)
DATA (TI-V)
STEREO INDI
RESET
TRACKING 2
TRACKING 1
To TIMER CN703
X2701 8MHz
NOTE DTC144

MODE,
REC) MODE.

TIMER SUB P.C.B


PG2704
PG2703
PG2701
PG2705
PG2708
PG2707
PG2702
PG2706
PG2714
PG2716
PG2715
PG2713
PG2712
PG2711
To YTJ PG801
To SSA PG512
To YTJ PG1503
To DIGITAL PROCESS PG1003
To YTJ PG203
To YTJ PG1402
To SSA PG511
To SSA PG903
To TIMER CN704
To TIMER CN707
To TIMER CN705
To TIMER CN703
To TIMER CN702
To TIMER CN701
CN2710
To TIMER CN710
IC2701
IC2710
QR2701
For UK
For WG, AEP
Component Side
Solder Side
Through Hole

TIMER SUB P.C.B

X ONE VOLTAGE PB OR REC MODE.
TWO VOLTAGES PB AND (REC) MODE.

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TIMER (UK)	5-16
FRONT SW (UK)	5-20
TIMER (WG,AEP)	5-22
FRONT SW (WG,AEP)	5-26
IR CONVERTER	5-28
Y/CHROMA	5-31
FS TUNING (WG,AEP)	5-34
VS TUNING (UK)	5-36
PRE/REC AMP	5-37
VPS (WG)	5-38
DEMODULATOR (AEP)	5-39
CHARACTER GENERATOR	5-41
JACK (UK)	5-43
JACK (WG,AEP)	5-45
AUDIO NR	5-53
AUDIO I/O	5-56
FM AUDIO	5-59
MOTOR DRIVE	5-61
CAPSTAN MOTOR	5-62
SERVO	5-63
SYSTEM CONTROL	5-66
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ENCODE/DECODE/MEMORY	5-75
CONTROL	5-78
REGULATOR	5-84
RF CONVERTER	5-86

TIMER (For UK)

SCHEMATIC DIAGRAM	PAGE
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TIMER (UK)	5-16
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TIMER (WG,AEP)	5-22
FRONT SW (WG,AEP)	5-26
IR CONVERTER	5-28
Y/CHROMA	5-31
FS TUNING (WG,AEP)	5-34
VS TUNING (UK)	5-36
PRE/REC AMP	5-37
VPS (WG)	5-38
DEMODULATOR (AEP)	5-39
CHARACTER GENERATOR	5-41
JACK (UK)	5-43
JACK (WG,AEP)	5-45
AUDIO NR	5-53
AUDIO I/O	5-56
FM AUDIO	5-59
MOTOR DRIVE	5-61
CAPSTAN MOTOR	5-62
SERVO	5-63
SYSTEM CONTROL	5-66
VIDEO I/O PROCESS	5-72
ENCODE/DECODE/MEMORY	5-75
CONTROL	5-78
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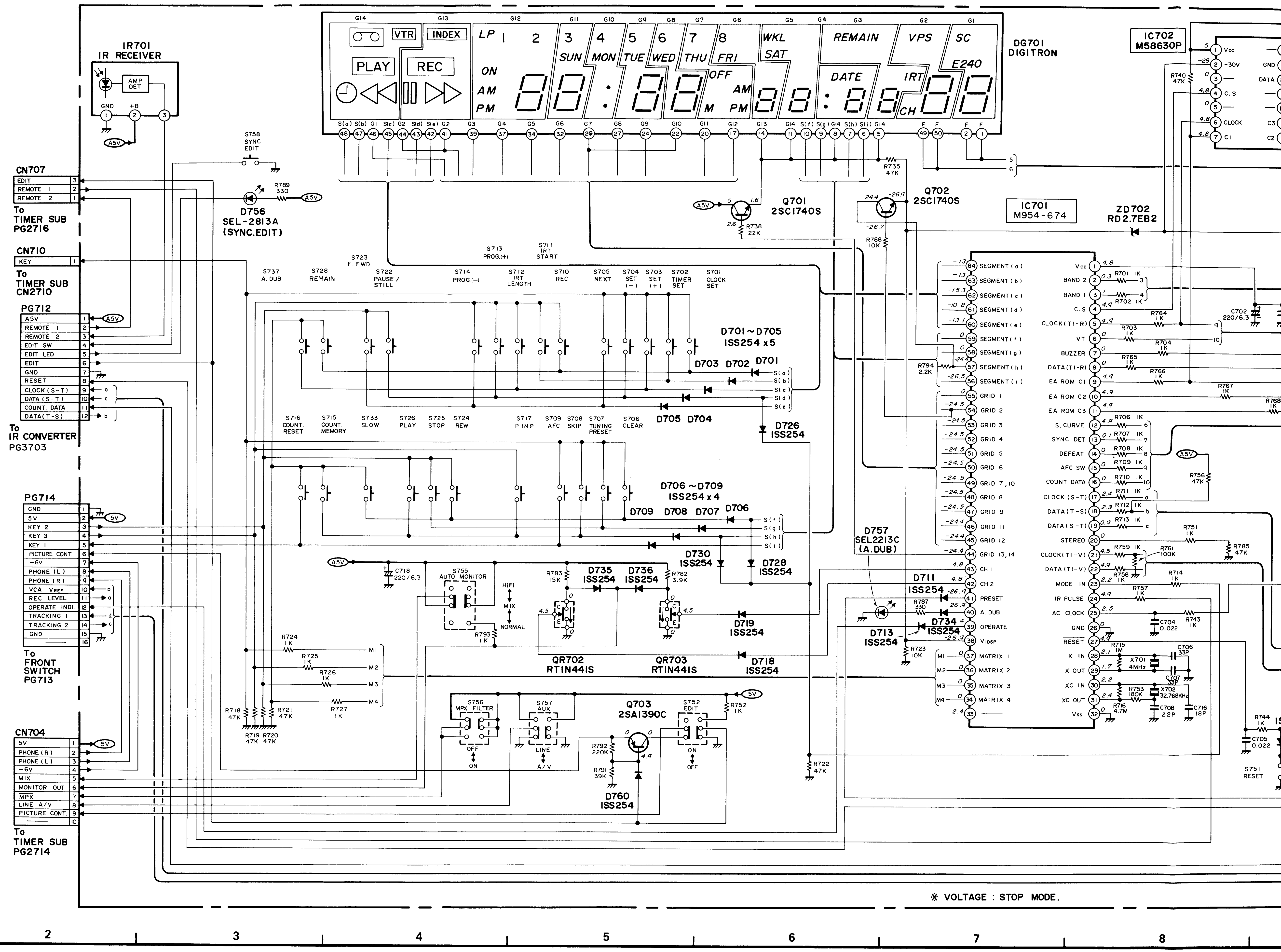
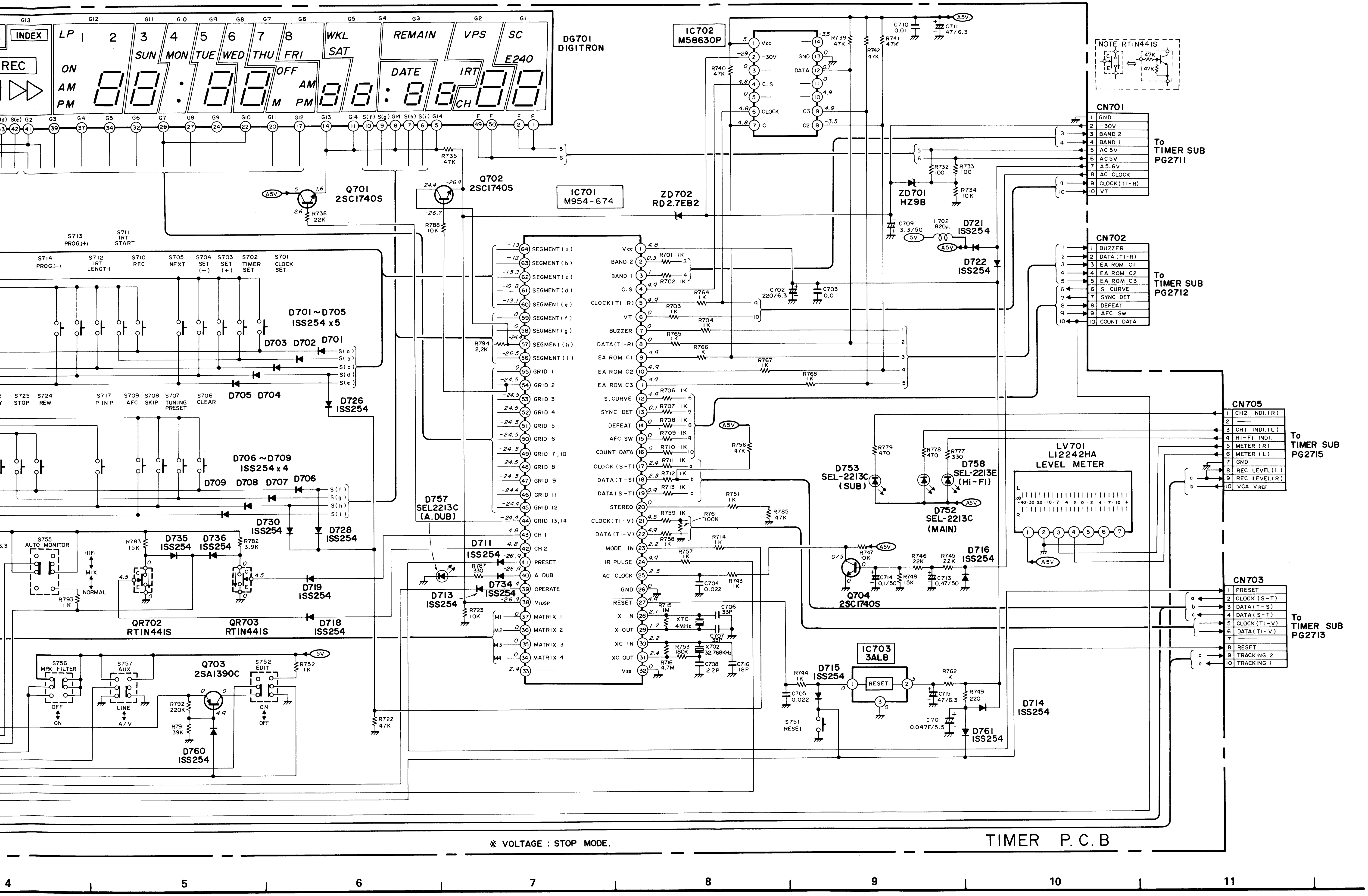
RF CONVERTER	5-86

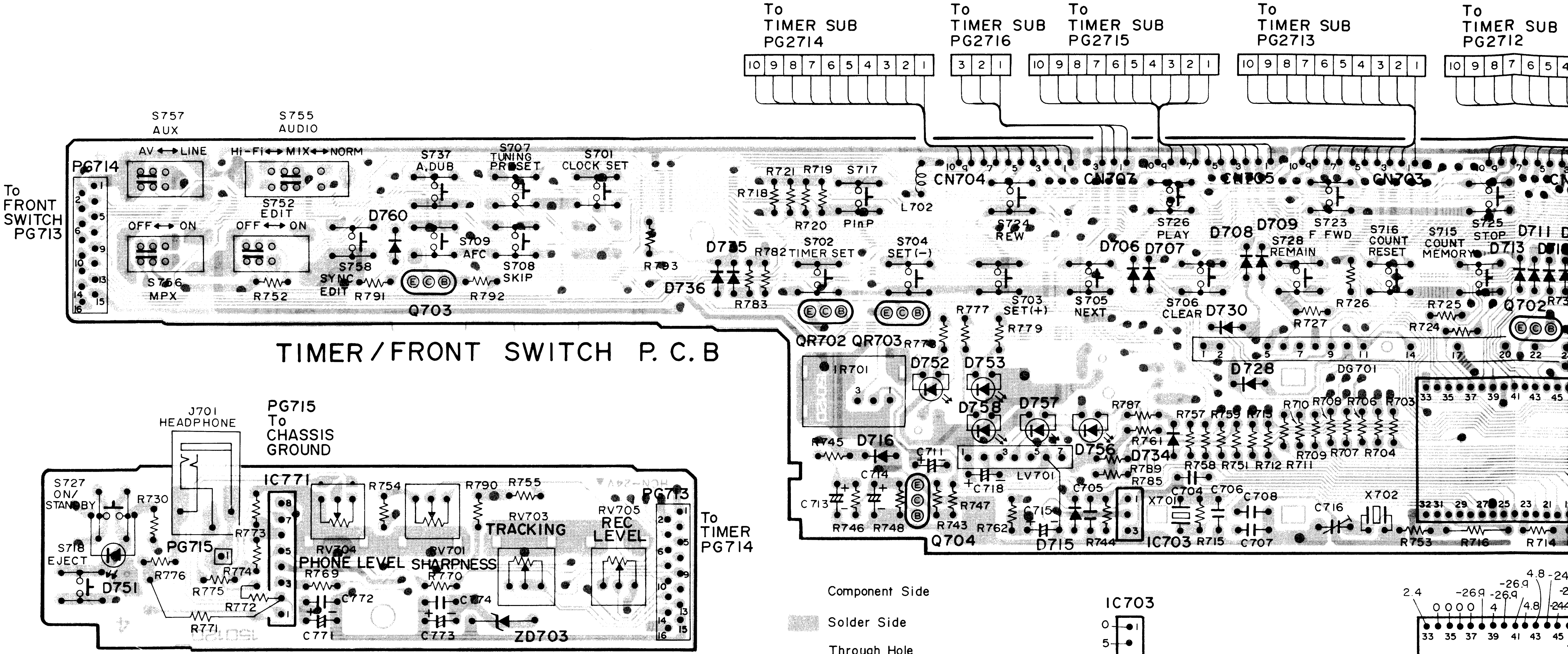


IR701 IR RECEIVER
AMP DET
DG701 DIGITRON
IC702 M58630P
IC701 M954-674
Q701 2SC1740S
Q702 2SC1740S
Q703 2SA1390C
ZD702 RD2.7EB2
D756 SEL-2813A (SYNC.EDIT)
D757 SEL2213C (A.DUB)
D701~D705 1SS254 x5
D706~D709 1SS254 x4
D726 1SS254
D728 1SS254
D730 1SS254
D735 1SS254
D736 1SS254
D711 1SS254
D713 1SS254
D734 1SS254
D719 1SS254
D718 1SS254
D760 1SS254
QR702 RT1N441S
QR703 RT1N441S
S758 SYNC EDIT
S723 F.FWD
S737 A.DUB
S728 REMAIN
S722 PAUSE/STILL
S714 PROG.(−)
S713 PROG.(+)
S712 IRT LENGTH
S711 IRT START
S710 REC
S705 NEXT
S704 SET (−)
S703 SET (+)
S702 TIMER SET
S701 CLOCK SET
S716 COUNT. RESET
S715 COUNT. MEMORY
S733 SLOW
S726 PLAY
S725 STOP
S724 REW
S717 P IN P
S709 AFC
S708 SKIP
S707 TUNING PRESET
S706 CLEAR
S755 AUTO MONITOR
S756 MPX FILTER
S757 AUX
S752 EDIT
S751 RESET
HiFi MIX NORMAL
OFF ON
LINE A/V
CN707
To TIMER SUB PG2716
CN710
To TIMER SUB CN2710
PG712
To IR CONVERTER PG3703
PG714
To FRONT SWITCH PG713
CN704
To TIMER SUB PG2714
X701 4MHz
X702 32.768KHz
※ VOLTAGE : STOP MODE.


DG701
DIGITRON
INDEX
REC
LP
ON
AM
PM
SUN MON TUE WED THU FRI
OFF
WKL
SAT
REMAIN
DATE
VPS
IRT
SC
E240
CH
IC702
M58630P
Vcc
-30V
C.S
CLOCK
CI
GND
DATA
C3
C2
R739 47K
R741 47K
R742 47K
R740 47K
C710 0.01
C711 47/6.3
A5V
NOTE: RTIN441S
CN701
GND
-30V
BAND 2
BAND 1
AC 5V
AC5V
A 5.6V
AC CLOCK
CLOCK (TI-R)
VT
To
TIMER SUB
PG2711
R735 47K
Q701
2SC1740S
R738 22K
Q702
2SC1740S
R788 10K
IC701
M954-674
ZD702
RD2.7EB2
ZD701
HZ9B
R732 100
R733 100
R734 10K
C709 3.3/50
L702 820μ
D721
ISS254
D722
ISS254
5V
CN702
BUZZER
DATA (TI-R)
EA ROM C1
EA ROM C2
EA ROM C3
S. CURVE
SYNC DET
DEFEAT
AFC SW
COUNT DATA
To
TIMER SUB
PG2712
S713 PROG.(+)
S711 IRT START
S714 PROG.(−)
S712 IRT LENGTH
S710 REC
S705 NEXT
S704 SET (−)
S703 SET (+)
S702 TIMER SET
S701 CLOCK SET
D701~D705
ISS254 x5
D703 D702 D701
D705 D704
D726
ISS254
S725 STOP
S724 REW
S717 PINP
S709 AFC
S708 SKIP
S707 TUNING PRESET
S706 CLEAR
D706~D709
ISS254 x 4
D709 D708 D707 D706
D730
ISS254
D728
ISS254
S755
AUTO MONITOR
HiFi
MIX
NORMAL
R783 15K
D735
ISS254
D736
ISS254
R782 3.9K
D719
ISS254
R793 1K
QR702
RTIN441S
QR703
RTIN441S
D718
ISS254
D757
SEL2213C
(A.DUB)
D711
ISS254
R787 330
D734
ISS254
D713
ISS254
R723 10K
S756
MPX FILTER
OFF
ON
S757
AUX
LINE
A/V
Q703
2SA1390C
S752
EDIT
R752 1K
R792 220K
R791 39K
D760
ISS254
R722 47K
SEGMENT (a)
SEGMENT (b)
SEGMENT (c)
SEGMENT (d)
SEGMENT (e)
SEGMENT (f)
SEGMENT (g)
SEGMENT (h)
SEGMENT (i)
GRID 1
GRID 2
GRID 3
GRID 4
GRID 5
GRID 6
GRID 7, 10
GRID 8
GRID 9
GRID 11
GRID 12
GRID 13, 14
CH 1
CH 2
PRESET
A. DUB
OPERATE
VIDSP
MATRIX 1
MATRIX 2
MATRIX 3
MATRIX 4
Vcc
BAND 2
BAND 1
C.S
CLOCK (TI-R)
VT
BUZZER
DATA (TI-R)
EA ROM C1
EA ROM C2
EA ROM C3
S. CURVE
SYNC DET
DEFEAT
AFC SW
COUNT DATA
CLOCK (S-T)
DATA (T-S)
DATA (S-T)
STEREO
CLOCK (TI-V)
DATA (TI-V)
MODE IN
IR PULSE
AC CLOCK
GND
RESET
X IN
X OUT
XC IN
XC OUT
Vss
R794 2.2K
C702 220/6.3
C703 0.01
X701 4MHz
X702 32.768KHz
R715 1M
R716 4.7M
R753 180K
C706 33P
C707 33P
C708 22P
C716 18P
C704 0.022
R743 1K
R756 47K
R785 47K
R761 100K
D753
SEL-2213C
(SUB)
R779 470
R778 470
R777 330
D758
SEL-2213E
(HI-Fi)
D752
SEL-2213C
(MAIN)
LV701
LI2242HA
LEVEL METER
Q704
2SC1740S
R747 10K
R746 22K
R745 22K
R748 15K
C714 0.1/50
C713 0.47/50
D716
ISS254
IC703
3AL8
RESET
R744 1K
D715
ISS254
C705 0.022
S751
RESET
R762 1K
R749 220
C715 47/6.3
C701 0.047F/5.5
D714
ISS254
D761
ISS254
CN705
CH2 INDI. (R)
CH1 INDI. (L)
Hi-Fi INDI.
METER (R)
METER (L)
GND
REC LEVEL (L)
REC LEVEL (R)
VCA VREF
To
TIMER SUB
PG2715
CN703
PRESET
CLOCK (S-T)
DATA (T-S)
DATA (S-T)
CLOCK (TI-V)
DATA (TI-V)
RESET
TRACKING 2
TRACKING 1
To
TIMER SUB
PG2713
4
5
6
7
8
9
10
11

※ VOLTAGE : STOP MODE.

TIMER P.C.B



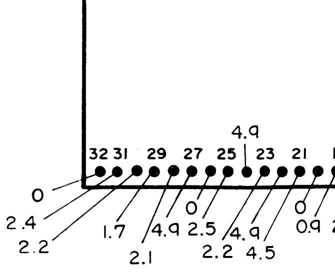
To TIMER SUB PG2714
To TIMER SUB PG2716
To TIMER SUB PG2715
To TIMER SUB PG2713
To TIMER SUB PG2712
To FRONT SWITCH PG713
PG714
S757 AUX
S755 AUDIO
AV ↔ LINE
Hi-Fi ↔ MIX ↔ NORM
S752 EDIT
OFF ↔ ON
S756 MPX
S758 SYNC EDIT
S737 A.DUB
S707 TUNING PRESET
S701 CLOCK SET
S709 AFC
S708 SKIP
D760
Q703
R752
R791
R792
R793
D735
D736
R782
R783
S702 TIMER SET
S704 SET (−)
S717 PInP
R721
R719
R718
R720
L702
CN704
CN707
CN705
CN703
S724 REW
S726 PLAY
S723 F FWD
S728 REMAIN
S716 COUNT RESET
S715 COUNT MEMORY
S725 STOP
D706
D707
D708
D709
D711
D713
S703 SET(+)
S705 NEXT
S706 CLEAR
D730
QR702
QR703
R777
R778
R779
R726
R727
R725
R724
Q702
IR701
D752
D753
D758
D757
D756
D728
DG701
R787
R757
R759
R713
R710
R708
R706
R703
R709
R707
R704
R761
D734
R789
R785
R758
R751
R712
R711
R745
D716
C711
C714
C713
C718
LV701
C705
X701
C704
C706
C708
C716
X702
R746
R748
R747
R743
R762
C715
D715
R744
IC703
R715
C707
R753
R716
R714
Q704
J701 HEADPHONE
PG715 To CHASSIS GROUND
IC771
S727 ON/STANDBY
S718 EJECT
R730
PG715
R773
R774
R776
R775
R772
R771
D751
R754
RV704 PHONE LEVEL
R769
C772
C771
R790
R755
RV701 SHARPNESS
R770
C774
C773
RV703 TRACKING
RV705 REC LEVEL
ZD703
PG713
To TIMER PG714
IC703

TIMER/FRONT SWITCH P.C.B

Component Side

▨ Solder Side

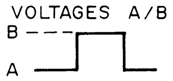
Through Hole



4.9
0
2.4
2.2
1.7
2.1
4.9
2.5
2.2
4.5
0.9

FRONT SWITCH

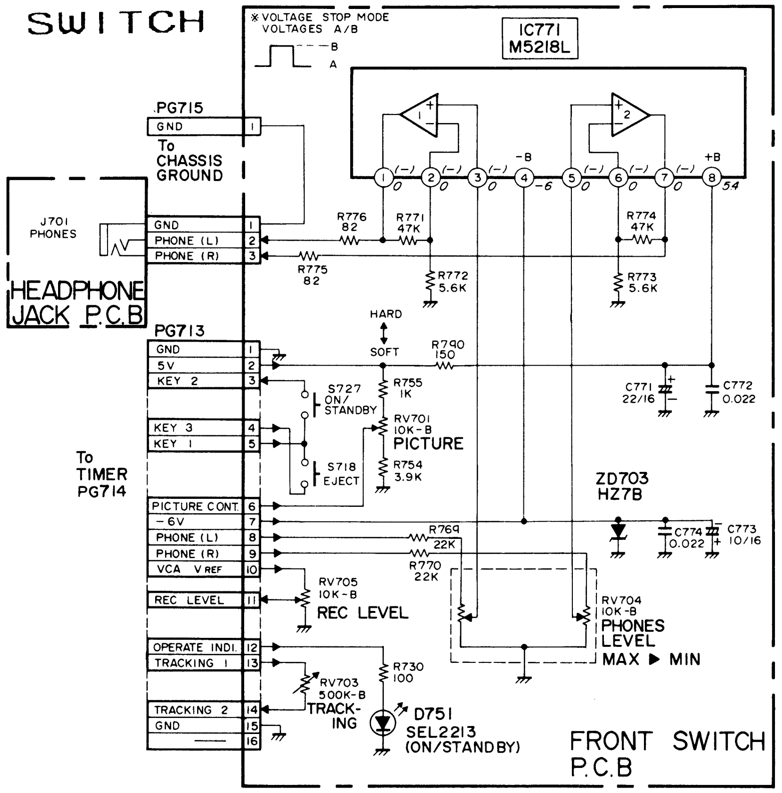
※ VOLTAGE : STOP MODE.



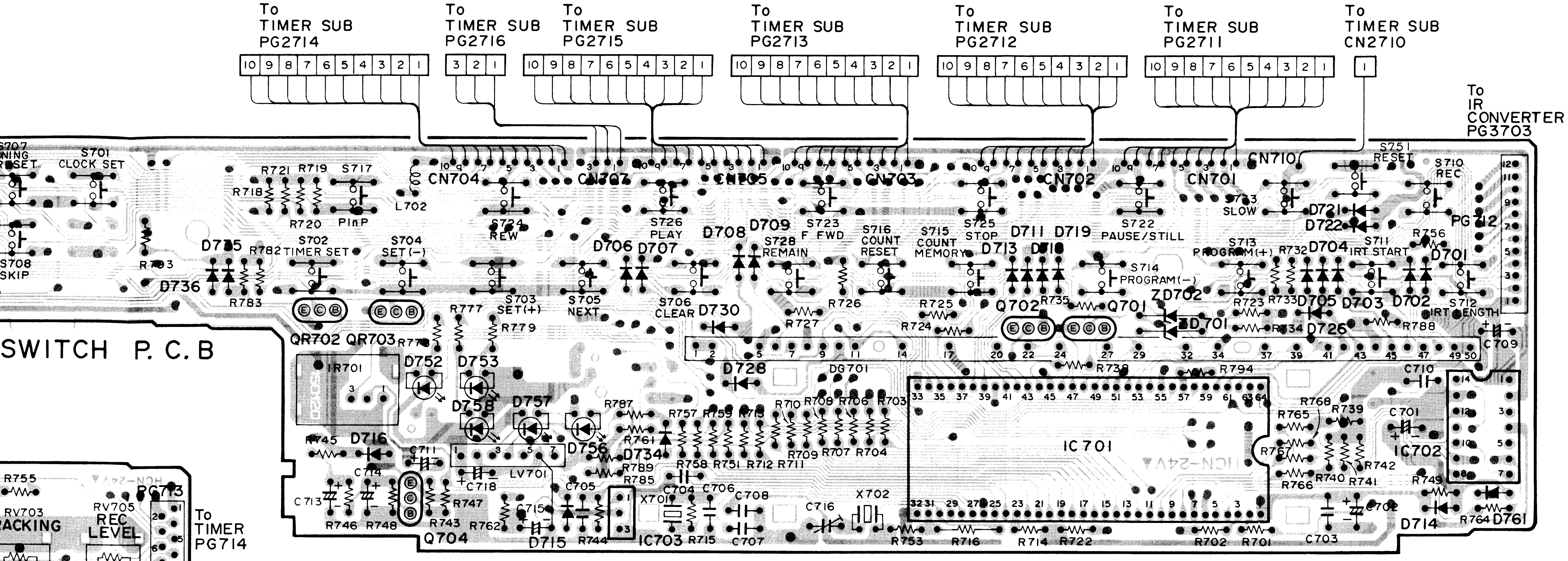
VOLTAGES A/B
B
A

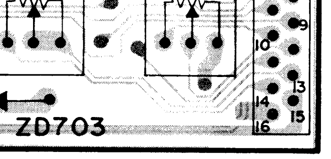
IC771

Pin	Voltage
8	5.4
7	0 (−)
6	0 (−)
5	0 (−)
4	−6
3	0 (−)
2	0 (−)
1	0 (−)



※ VOLTAGE STOP MODE VOLTAGES A/B
IC771 M5218L
PG715 GND
To CHASSIS GROUND
J701 PHONES
GND
PHONE (L)
PHONE (R)
HEADPHONE JACK P.C.B
R776 82
R771 47K
R775 82
R772 5.6K
R774 47K
R773 5.6K
PG713
GND
5V
KEY 2
KEY 3
KEY 1
HARD
SOFT
R790 150
R755 1K
S727 ON/STANDBY
RV701 10K-B PICTURE
R754 3.9K
S718 EJECT
C771 22/16
C772 0.022
To TIMER PG714
PICTURE CONT
−6V
PHONE (L)
PHONE (R)
VCA V REF
REC LEVEL
OPERATE INDI.
TRACKING 1
TRACKING 2
GND
ZD703 HZ7B
C774 0.022
C773 10/16
R769 22K
R770 22K
RV705 10K-B REC LEVEL
RV704 10K-B PHONES LEVEL MAX ▶ MIN
RV703 500K-B TRACKING
R730 100
D751 SEL2213 (ON/STANDBY)
FRONT SWITCH P.C.B


To TIMER SUB PG2714
To TIMER SUB PG2716
To TIMER SUB PG2715
To TIMER SUB PG2713
To TIMER SUB PG2712
To TIMER SUB PG2711
To TIMER SUB CN2710
To IR CONVERTER PG3703
CN704
CN707
CN705
CN703
CN702
CN701
CN710
PG712
S701 CLOCK SET
S717 PIcP
S702 TIMER SET
S704 SET(−)
S724 REW
S726 PLAY
S723 F FWD
S728 REMAIN
S716 COUNT RESET
S715 COUNT MEMORY
S725 STOP
S722 PAUSE/STILL
S733 SLOW
S751 RESET
S710 REC
S713 PROGRAM(+)
S714 PROGRAM(−)
S711 IRT START
S712 IRT LENGTH
S703 SET(+)
S705 NEXT
S706 CLEAR
S708 SKIP
SWITCH P.C.B
QR702
QR703
IR701
D752
D753
D758
D757
D756
D716
D715
Q704
LV701
X701
X702
IC703
IC701
IC702
DG701
Q702
Q701
ZD702
ZD701
D701
D702
D703
D704
D705
D706
D707
D708
D709
D711
D713
D714
D718
D719
D721
D722
D726
D728
D730
D734
D735
D736
D761
RV703 TRACKING
RV705 REC LEVEL
PG713
To TIMER PG714

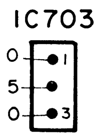


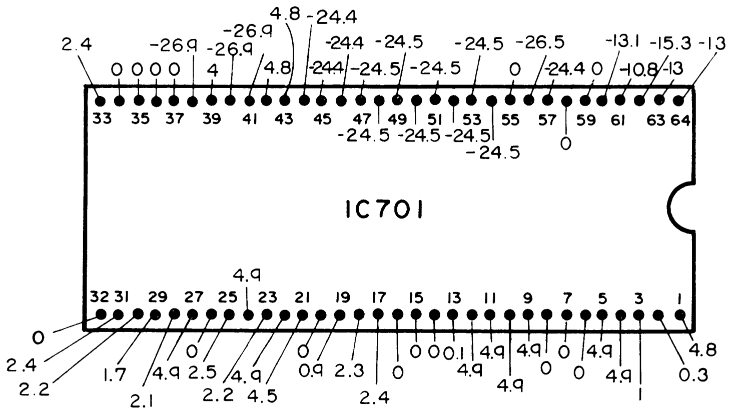
FRONT SWITCH

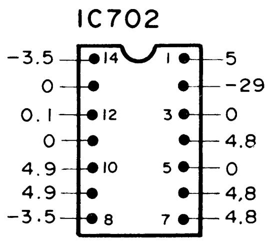
Component Side

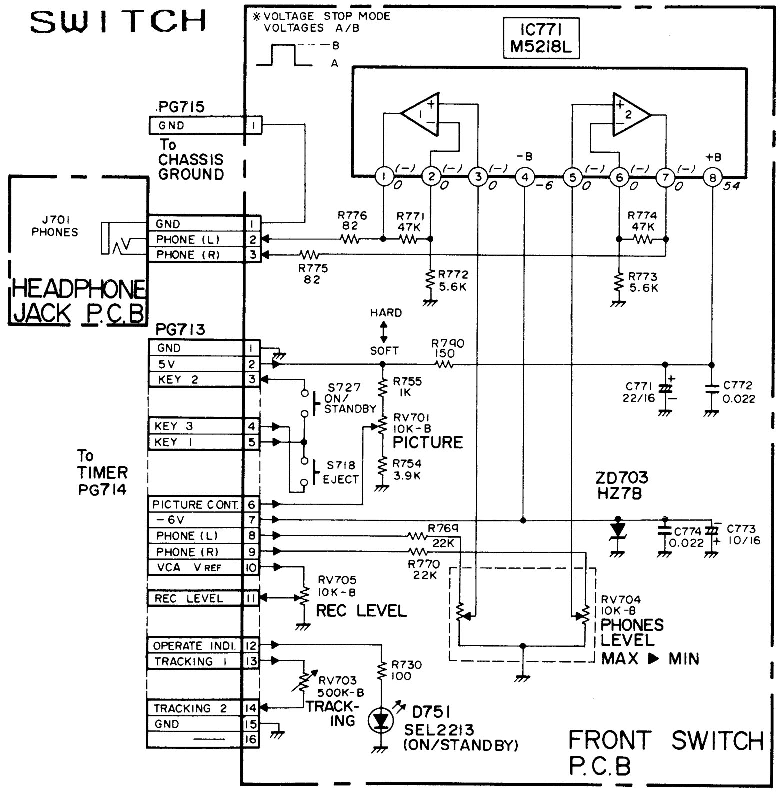
Solder Side

Through Hole


IC703
0
5
0
1
2
3




IC702
−3.5
0
0.1
0
4.9
4.9
−3.5
5
−29
0
4.8
0
4.8
4.8


※VOLTAGE STOP MODE VOLTAGES A/B
IC771 M5218L
PG715
To CHASSIS GROUND
J701 PHONES
HEADPHONE JACK P.C.B
PG713
HARD
SOFT
S727 ON/STANDBY
S718 EJECT
RV701 10K-B PICTURE
To TIMER PG714
ZD703 HZ7B
RV705 10K-B REC LEVEL
RV704 10K-B PHONES LEVEL MAX ▶ MIN
RV703 500K-B TRACK-ING
D751 SEL2213 (ON/STANDBY)
FRONT SWITCH P.C.B

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TIMER SUB	5-13
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4 5 6 7 8 9 10 11

TIMER (For WG, AEP)

SCHEMATIC DIAGRAM	PAGE
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IF UNIT (UK)·············	5-10
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AUDIO I/O ···············	5-56
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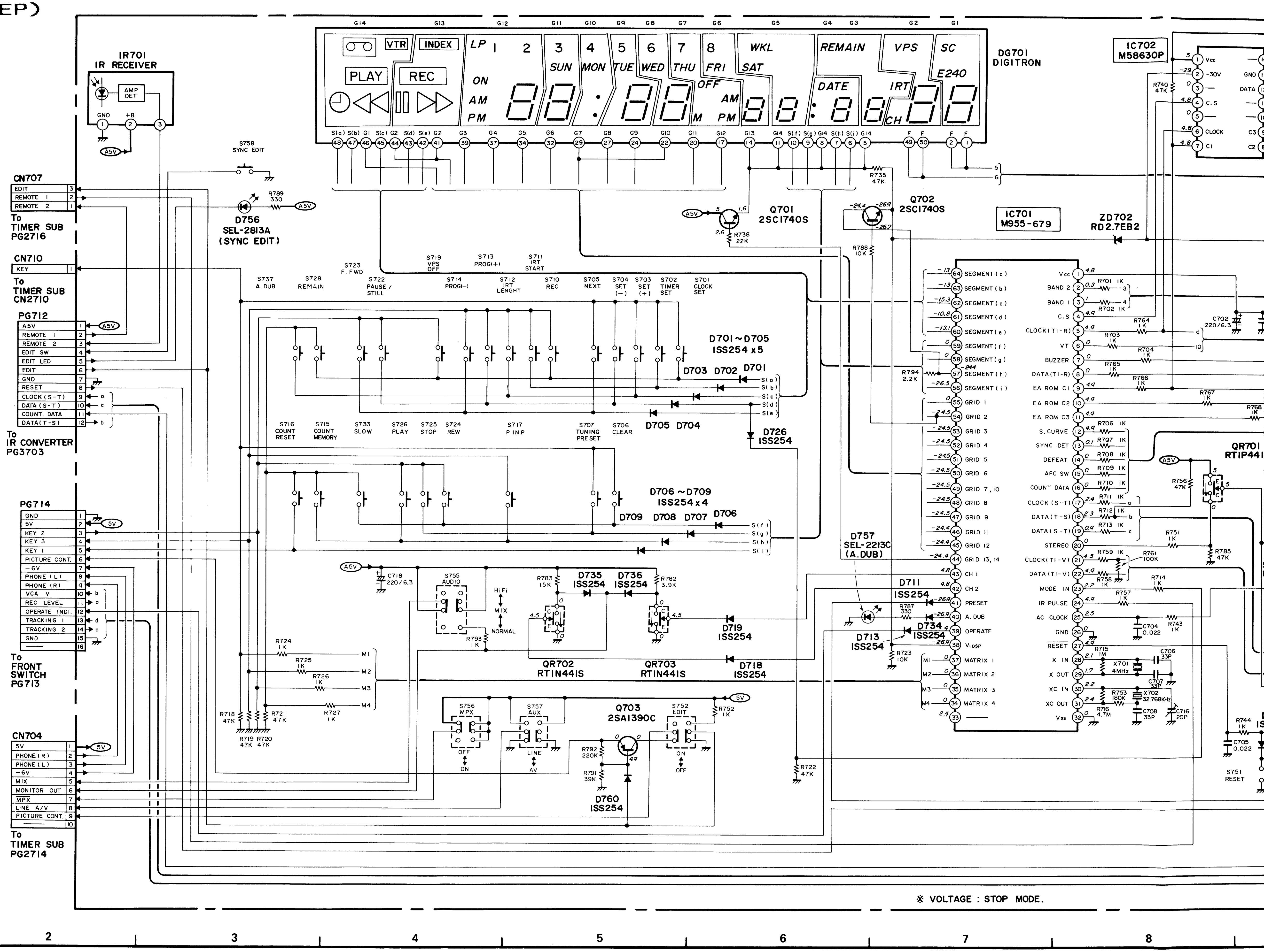
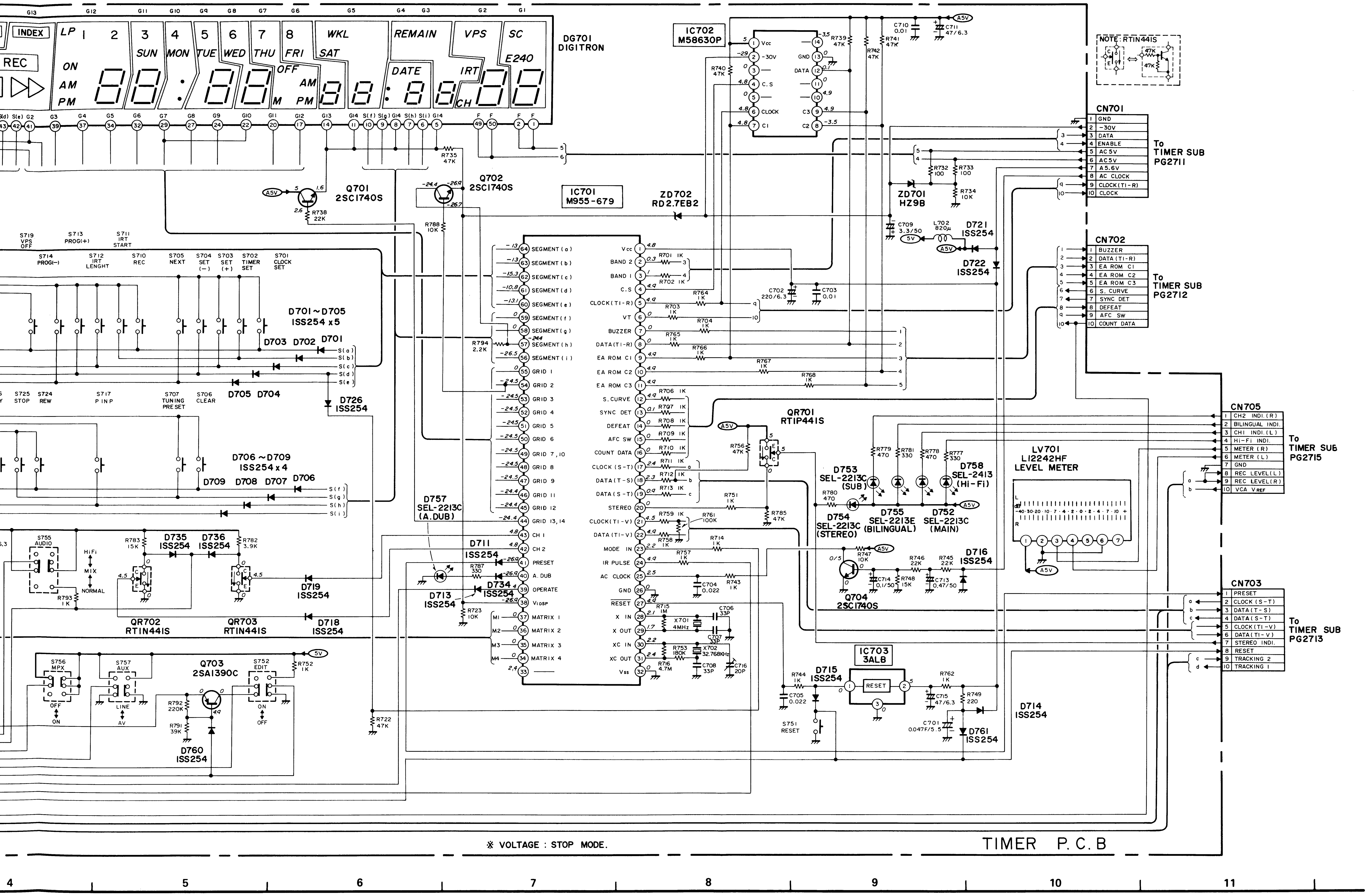
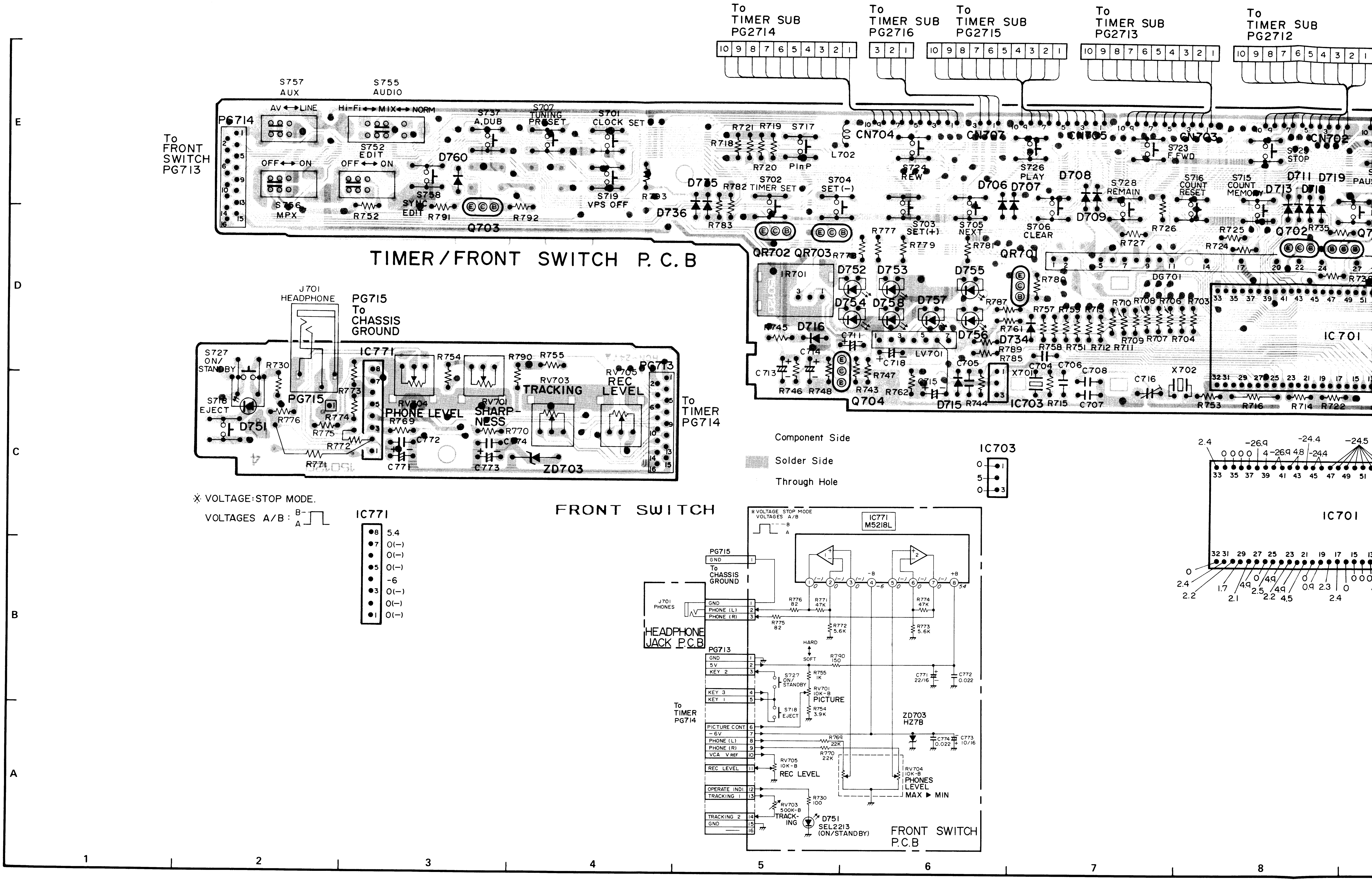
RF CONVERTER ············	5-86



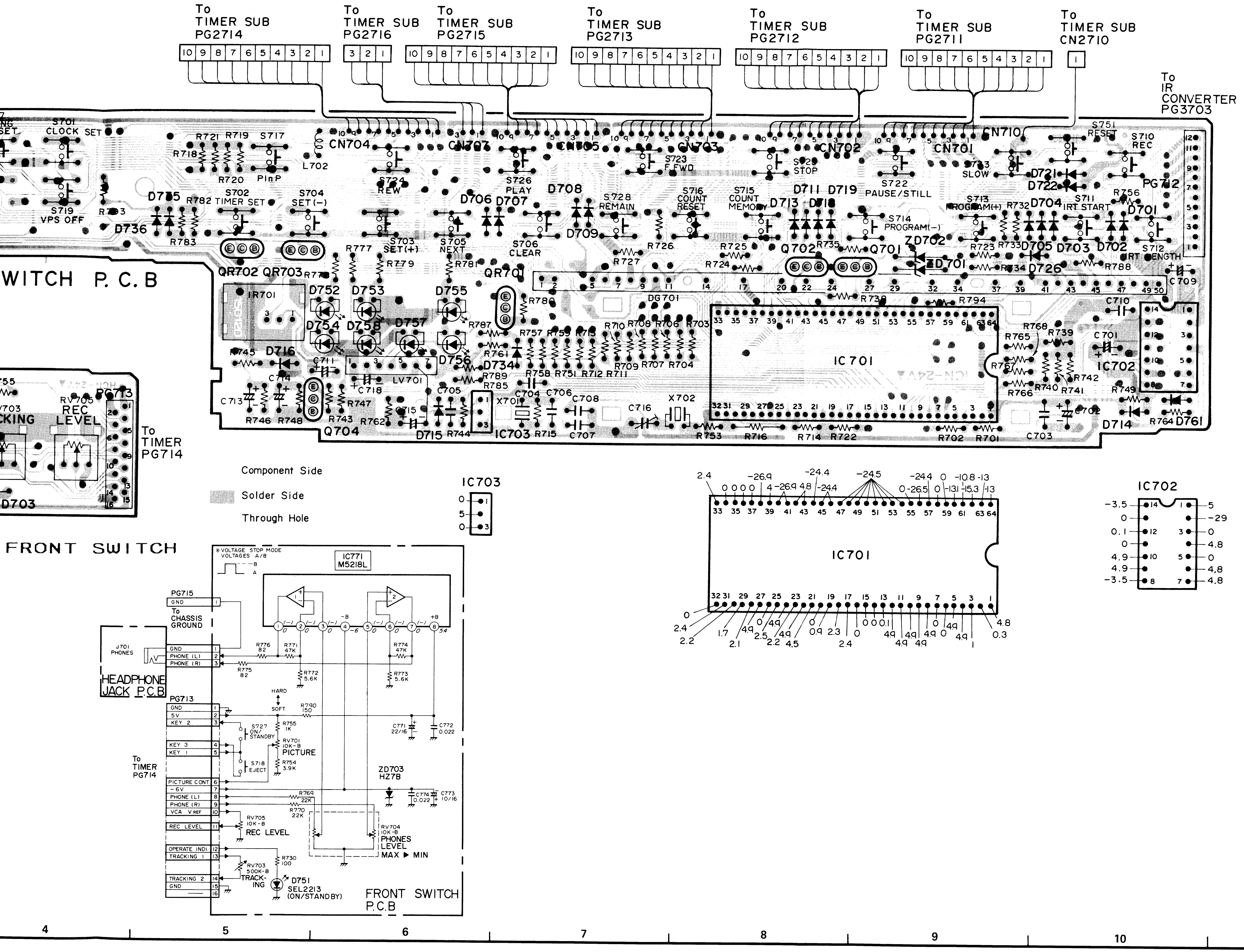
IR701
IR RECEIVER
AMP DET
GND
+B
A5V
S758
SYNC EDIT
R789 330
D756
SEL-2813A
(SYNC EDIT)
CN707
EDIT
REMOTE 1
REMOTE 2
To TIMER SUB PG2716
CN710
KEY
To TIMER SUB CN2710
PG712
A5V
REMOTE 1
REMOTE 2
EDIT SW
EDIT LED
EDIT
GND
RESET
CLOCK (S-T)
DATA (S-T)
COUNT. DATA
DATA (T-S)
To IR CONVERTER PG3703
PG714
GND
5V
KEY 2
KEY 3
KEY 1
PICTURE CONT.
-6V
PHONE (L)
PHONE (R)
VCA V
REC LEVEL
OPERATE INDI.
TRACKING 1
TRACKING 2
GND
To FRONT SWITCH PG713
CN704
5V
PHONE (R)
PHONE (L)
-6V
MIX
MONITOR OUT
MPX
LINE A/V
PICTURE CONT.
To TIMER SUB PG2714
DG701
DIGITRON
G14 G13 G12 G11 G10 G9 G8 G7 G6 G5 G4 G3 G2 G1
VTR
INDEX
PLAY
REC
LP
ON
AM
PM
SUN MON TUE WED THU FRI SAT
WKL
OFF
REMAIN
DATE
VPS
IRT
SC
E240
CH
Q701
2SC1740S
R738 22K
Q702
2SC1740S
R735 47K
R788 10K
S737 A DUB
S728 REMAIN
S723 F. FWD
S722 PAUSE / STILL
S719 VPS OFF
S714 PROG(-)
S713 PROG(+)
S712 IRT LENGHT
S711 IRT START
S710 REC
S705 NEXT
S704 SET (-)
S703 SET (+)
S702 TIMER SET
S701 CLOCK SET
D701~D705
ISS254 x5
D703 D702 D701
D705 D704
D726 ISS254
S716 COUNT RESET
S715 COUNT MEMORY
S733 SLOW
S726 PLAY
S725 STOP
S724 REW
S717 P IN P
S707 TUNING PRESET
S706 CLEAR
D706~D709
ISS254 x4
D709 D708 D707 D706
S(a) S(b) S(c) S(d) S(e) S(f) S(g) S(h) S(i)
C718 220/6.3
S755 AUDIO
HiFi
MIX
NORMAL
R793 1K
R783 15K
D735 ISS254
D736 ISS254
R782 3.9K
QR702 RTN441S
QR703 RTN441S
D719 ISS254
D718 ISS254
R724 1K
R725 1K
R726 1K
R727 1K
M1 M2 M3 M4
R718 47K
R719 47K
R720 47K
R721 47K
S756 MPX
OFF ON
S757 AUX
LINE AV
Q703
2SA1390C
S752 EDIT
ON OFF
R752 1K
R792 220K
R791 39K
D760 ISS254
5V
D757
SEL-2213C
(A.DUB)
D711 ISS254
R787 330
D713 ISS254
D734 ISS254
R723 10K
R722 47K
R794 2.2K
IC701
M955-679
SEGMENT (a) SEGMENT (b) SEGMENT (c) SEGMENT (d) SEGMENT (e) SEGMENT (f) SEGMENT (g) SEGMENT (h) SEGMENT (i)
GRID 1 GRID 2 GRID 3 GRID 4 GRID 5 GRID 6 GRID 7, 10 GRID 8 GRID 9 GRID 11 GRID 12 GRID 13, 14
CH 1 CH 2
PRESET
A. DUB
OPERATE
VIOSP
MATRIX 1 MATRIX 2 MATRIX 3 MATRIX 4
Vcc
BAND 2
BAND 1
C.S
CLOCK (TI-R)
VT
BUZZER
DATA (TI-R)
EA ROM C1
EA ROM C2
EA ROM C3
S.CURVE
SYNC DET
DEFEAT
AFC SW
COUNT DATA
CLOCK (S-T)
DATA (T-S)
DATA (S-T)
STEREO
CLOCK (TI-V)
DATA (TI-V)
MODE IN
IR PULSE
AC CLOCK
GND
RESET
X IN
X OUT
XC IN
XC OUT
Vss
R701 1K
R702 1K
R703 1K
R704 1K
R764 1K
R765 1K
R766 1K
R767 1K
R768 1K
R706 1K
R707 1K
R708 1K
R709 1K
R710 1K
R711 1K
R712 1K
R713 1K
R751 1K
R759 1K
R761 100K
R758 1K
R714 1K
R757 1K
R743 1K
C704 0.022
R715 1M
X701 4MHz
C706 33P
C707 33P
R753 180K
X702 32.768KHz
R716 4.7M
C708 33P
C716 20P
ZD702
RD2.7EB2
IC702
M58630P
Vcc
-30V
C.S
CLOCK
C1
GND
DATA
C3
C2
R740 47K
C702 220/6.3
QR701
RTIP441
R756 47K
R785 47K
R744 1K
C705 0.022
S751 RESET
※ VOLTAGE : STOP MODE.
1 2 3 4 5 6 7 8
A B C D E


DG701 DIGITRON
INDEX
REC
LP
ON
AM
PM
SUN MON TUE WED THU FRI SAT
OFF
WKL
REMAIN
DATE
IRT
CH
VPS
SC
E240
IC702 M58630P
IC701 M955-679
IC703 3ALB
Q701 2SC1740S
Q702 2SC1740S
Q703 2SA1390C
Q704 2SC1740S
QR701 RTIP441S
QR702 RTIN441S
QR703 RTIN441S
NOTE: RTIN441S
ZD701 HZ9B
ZD702 RD2.7EB2
D701~D705 ISS254 x5
D706~D709 ISS254 x4
D721 ISS254
D722 ISS254
D726 ISS254
D711 ISS254
D713 ISS254
D714 ISS254
D715 ISS254
D716 ISS254
D718 ISS254
D719 ISS254
D734 ISS254
D735 ISS254
D736 ISS254
D760 ISS254
D761 ISS254
D757 SEL-2213C (A.DUB)
D753 SEL-2213C (SUB)
D754 SEL-2213C (STEREO)
D755 SEL-2213E (BILINGUAL)
D752 SEL-2213C (MAIN)
D758 SEL-2413 (HI-Fi)
LV701 L12242HF LEVEL METER
S719 VPS OFF
S713 PROG(+)
S711 IRT START
S714 PROG(-)
S712 IRT LENGHT
S710 REC
S705 NEXT
S704 SET (-)
S703 SET (+)
S702 TIMER SET
S701 CLOCK SET
S725 STOP
S724 REW
S717 PINP
S707 TUNING PRESET
S706 CLEAR
S755 AUDIO
HiFi
MIX
NORMAL
S756 MPX
OFF
ON
S757 AUX
LINE
AV
S752 EDIT
ON
OFF
S751 RESET
CN701
1 GND
2 -30V
3 DATA
4 ENABLE
5 AC 5V
6 AC 5V
7 A5.6V
8 AC CLOCK
9 CLOCK (TI-R)
10 CLOCK
To TIMER SUB PG2711
CN702
1 BUZZER
2 DATA (TI-R)
3 EA ROM C1
4 EA ROM C2
5 EA ROM C3
6 S. CURVE
7 SYNC DET
8 DEFEAT
9 AFC SW
10 COUNT DATA
To TIMER SUB PG2712
CN705
1 CH2 INDI. (R)
2 BILINGUAL INDI.
3 CH1 INDI. (L)
4 Hi-Fi INDI.
5 METER (R)
6 METER (L)
7 GND
8 REC LEVEL (L)
9 REC LEVEL (R)
10 VCA V REF
To TIMER SUB PG2715
CN703
1 PRESET
2 CLOCK (S-T)
3 DATA (T-S)
4 DATA (S-T)
5 CLOCK (TI-V)
6 DATA (TI-V)
7 STEREO INDI.
8 RESET
9 TRACKING 2
10 TRACKING 1
To TIMER SUB PG2713
SEGMENT (a)
SEGMENT (b)
SEGMENT (c)
SEGMENT (d)
SEGMENT (e)
SEGMENT (f)
SEGMENT (g)
SEGMENT (h)
SEGMENT (i)
GRID 1
GRID 2
GRID 3
GRID 4
GRID 5
GRID 6
GRID 7,10
GRID 8
GRID 9
GRID 11
GRID 12
GRID 13,14
CH 1
CH 2
PRESET
A.DUB
OPERATE
VIDSP
MATRIX 1
MATRIX 2
MATRIX 3
MATRIX 4
Vcc
BAND 2
BAND 1
C.S
CLOCK (TI-R)
VT
BUZZER
DATA (TI-R)
EA ROM C1
EA ROM C2
EA ROM C3
S.CURVE
SYNC DET
DEFEAT
AFC SW
COUNT DATA
CLOCK (S-T)
DATA (T-S)
DATA (S-T)
STEREO
CLOCK (TI-V)
DATA (TI-V)
MODE IN
IR PULSE
AC CLOCK
GND
RESET
X IN
X OUT
XC IN
XC OUT
Vss
X701 4MHz
X702 32.768KHz
RESET
A5V
5V
※ VOLTAGE : STOP MODE.
TIMER P.C.B
4
5
6
7
8
9
10
11


To TIMER SUB PG2714
To TIMER SUB PG2716
To TIMER SUB PG2715
To TIMER SUB PG2713
To TIMER SUB PG2712
S757 AUX
S755 AUDIO
AV ↔ LINE
Hi-Fi ↔ MIX ↔ NORM
PG714
To FRONT SWITCH PG713
S752 EDIT
OFF ↔ ON
S756 MPX
R752
S737 A.DUB
S707 TUNING PRESET
S701 CLOCK SET
D760
S758 SYNC EDIT
R791
Q703
R792
S719 VPS OFF
R793
D735
D736
R782
R783
S702 TIMER SET
S704 SET(−)
R721 R719 S717
R718
R720 PinP
L702
CN704
CN707
CN705
CN703
CN702
S724 REW
S726 PLAY
D706 D707
D708
D709
S728 REMAIN
S723 F.FWD
S716 COUNT RESET
S715 COUNT MEMORY
S729 STOP
D711 D719
D713 D718
Q702
R735
R725
R724
R726
R727
S703 SET(+)
S705 NEXT
S706 CLEAR
R777 R779 R778 R781
QR702 QR703
QR701
R780
DG701
IR701
D752 D753 D755
D754 D758 D757
D756
R787
R761
D734
R745 D716
C711 C714
C713
R746 R748
R743 R747
Q704
R762 Q715
D715 R744
LV701
C718
C705
IC703
X701
R715
C704 C706 C708 C707
C716 X702
R757 R759 R713 R710 R708 R706 R703
R758 R751 R712 R711 R709 R707 R704
R789 R785
R753 R716 R714 R722
R733
IC701
TIMER/FRONT SWITCH P.C.B
J701 HEADPHONE
PG715 To CHASSIS GROUND
S727 ON/STANDBY
R730
S718 EJECT
D751
PG715
R773
R774
R775
R776
R772
R771
IC771
R754
R790 R755
RV704 PHONE LEVEL
R769
RV701 SHARPNESS
R770
C772
C771
C774
C773
RV703 TRACKING
ZD703
RV705 REC LEVEL
PG713
To TIMER PG714
FRONT SWITCH
Component Side
Solder Side
Through Hole
IC703
0 1
5 2
0 3
IC771
8 5.4
7 0(−)
6 0(−)
5 0(−)
4 −6
3 0(−)
2 0(−)
1 0(−)
2.4 −26.9 −24.4 −24.5
0 0 0 0 4 −26.9 4.8 −24.4
33 35 37 39 41 43 45 47 49 51
IC701
32 31 29 27 25 23 21 19 17 15 13
0 2.4 2.2 1.7 2.1 4.9 2.5 0 4.9 2.2 4.9 4.5 0 0.9 2.3 2.4 0 0 0 0
※ VOLTAGE STOP MODE
VOLTAGES A/B
B A
IC771 M5218L
PG715
GND
To CHASSIS GROUND
J701 PHONES
GND
PHONE (L)
PHONE (R)
HEADPHONE JACK P.C.B
R776 82
R775 82
R771 47K
R772 5.6K
R774 47K
R773 5.6K
−B
+B
−6
54
PG713
GND
5V
KEY 2
KEY 3
KEY 1
HARD
SOFT
R790 150
R755 1K
S727 ON/STANDBY
RV701 10K-B PICTURE
R754 3.9K
S718 EJECT
C771 22/16
C772 0.022
To TIMER PG714
PICTURE CONT
−6V
PHONE (L)
PHONE (R)
VCA V.REF
REC LEVEL
OPERATE INDI
TRACKING 1
TRACKING 2
GND
R769 22K
R770 22K
ZD703 HZ7B
C774 0.022
C773 10/16
RV705 10K-B REC LEVEL
RV704 10K-B PHONES LEVEL MAX ▶ MIN
R730 100
RV703 500K-B TRACKING
D751 SEL2213 (ON/STANDBY)
FRONT SWITCH P.C.B
E
D
C
B
A
1 2 3 4 5 6 7 8

※ VOLTAGE: STOP MODE.

VOLTAGES A/B : B– A


To TIMER SUB PG2714
To TIMER SUB PG2716
To TIMER SUB PG2715
To TIMER SUB PG2713
To TIMER SUB PG2712
To TIMER SUB PG2711
To TIMER SUB CN2710
To IR CONVERTER PG3703
CN704
CN707
CN705
CN703
CN702
CN701
CN710
S701 CLOCK SET
S717 PInP
S702 TIMER SET
S704 SET (−)
S719 VPS OFF
S724 REW
S726 PLAY
S703 SET(+)
S705 NEXT
S706 CLEAR
S728 REMAIN
S723 F.FWD
S716 COUNT RESET
S715 COUNT MEMORY
S729 STOP
S722 PAUSE/STILL
S714 PROGRAM(−)
S733 SLOW
S713 PROGRAM(+)
S711 IRT START
S712 IRT LENGTH
S751 RESET
S710 REC
PG712
WITCH P.C.B
QR702
QR703
QR701
IR701
Q702
Q701
Q704
ZD702
ZD701
DG701
LV701
IC701
IC702
IC703
X701
X702
To TIMER PG714
RV705 REC LEVEL
D703
Component Side
Solder Side
Through Hole
IC703
IC701
IC702
FRONT SWITCH
※VOLTAGE STOP MODE VOLTAGES A/B
IC771 M5218L
PG715
To CHASSIS GROUND
J701 PHONES
HEADPHONE JACK P.C.B
PG713
To TIMER PG714
S727 ON/STANDBY
S718 EJECT
RV701 10K-B PICTURE
ZD703 HZ7B
RV705 10K-B REC LEVEL
RV704 10K-B PHONES LEVEL MAX ▶ MIN
RV703 500K-B TRACKING
D751 SEL2213 (ON/STANDBY)
FRONT SWITCH P.C.B
4
5
6
7
8
9
10
11

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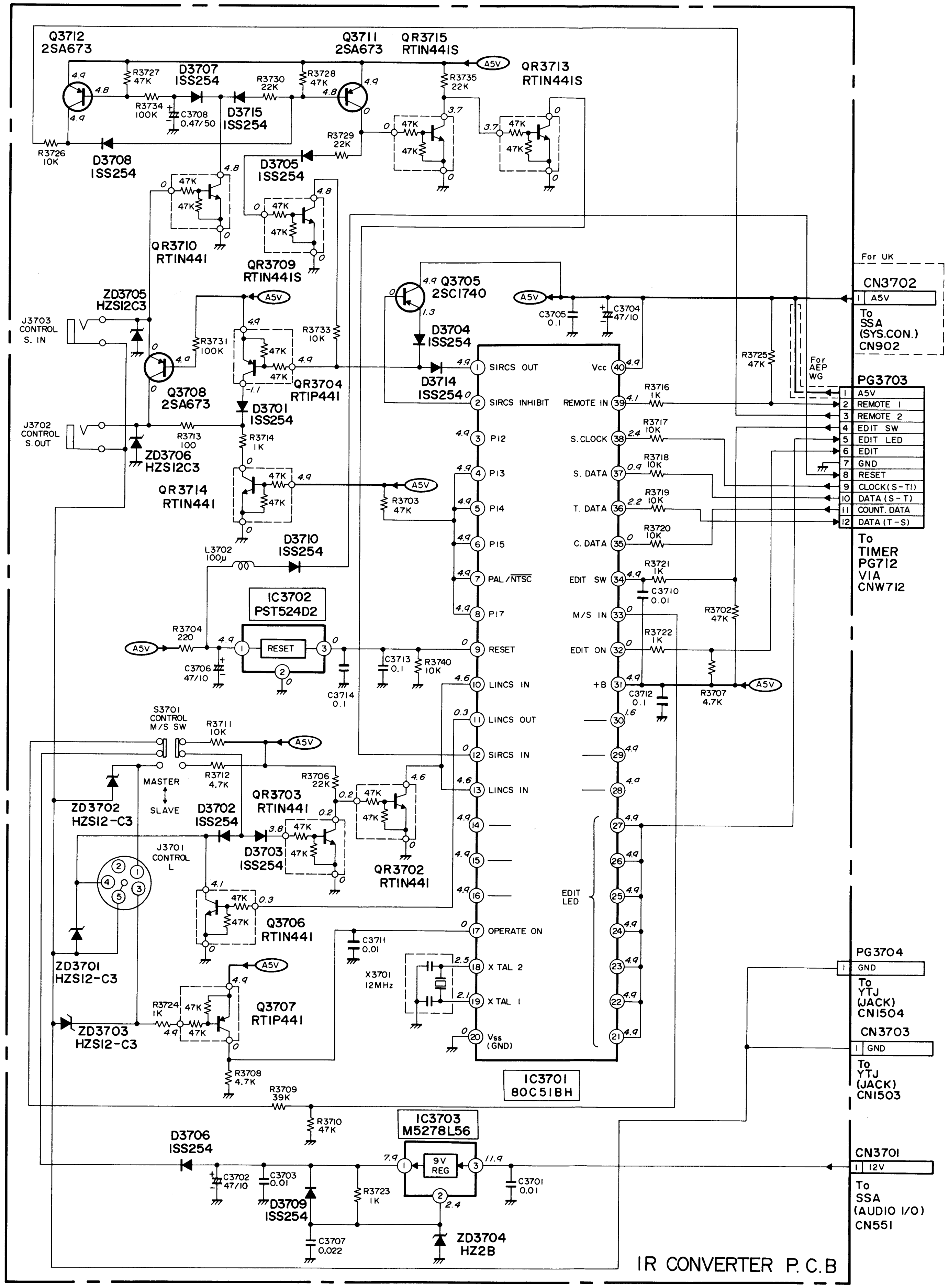
Q3712
2SA673
Q3711
2SA673
QR3715
RTIN441S
QR3713
RTIN441S
R3727 47K
D3707 ISS254
R3730 22K
R3728 47K
R3735 22K
R3734 100K
C3708 0.47/50
D3715 ISS254
R3726 10K
D3708 ISS254
R3729 22K
D3705 ISS254
QR3710 RTIN441
QR3709 RTIN441S
ZD3705 HZS12C3
J3703 CONTROL S. IN
R3731 100K
R3733 10K
Q3708 2SA673
QR3704 RTIP441
D3701 ISS254
J3702 CONTROL S.OUT
R3713 100
R3714 1K
ZD3706 HZS12C3
QR3714 RTIN441
R3703 47K
L3702 100μ
D3710 ISS254
Q3705 2SC1740
D3704 ISS254
D3714 ISS254
C3705 0.1
C3704 47/10
R3725 47K
For UK
CN3702
A5V
To SSA (SYS.CON.) CN902
For AEP WG
PG3703
1 A5V
2 REMOTE 1
3 REMOTE 2
4 EDIT SW
5 EDIT LED
6 EDIT
7 GND
8 RESET
9 CLOCK(S-T1)
10 DATA (S-T)
11 COUNT. DATA
12 DATA (T-S)
To TIMER PG712 VIA CNW712
IC3702 PST524D2
RESET
R3704 220
C3706 47/10
C3713 0.1
R3740 10K
C3714 0.1
1 SIRCS OUT
2 SIRCS INHIBIT
3 P12
4 P13
5 P14
6 P15
7 PAL/NTSC
8 P17
9 RESET
10 LINCS IN
11 LINCS OUT
12 SIRCS IN
13 LINCS IN
17 OPERATE ON
18 X TAL 2
19 X TAL 1
20 Vss (GND)
40 Vcc
39 REMOTE IN
38 S.CLOCK
37 S. DATA
36 T. DATA
35 C. DATA
34 EDIT SW
33 M/S IN
32 EDIT ON
31 +B
EDIT LED
R3716 1K
R3717 10K
R3718 10K
R3719 10K
R3720 10K
R3721 1K
C3710 0.01
R3702 47K
R3722 1K
C3712 0.1
R3707 4.7K
IC3701 80C51BH
S3701 CONTROL M/S SW
MASTER SLAVE
R3711 10K
R3712 4.7K
R3706 22K
QR3703 RTIN441
D3702 ISS254
D3703 ISS254
QR3702 RTIN441
ZD3702 HZS12-C3
J3701 CONTROL L
Q3706 RTIN441
C3711 0.01
X3701 12MHz
ZD3701 HZS12-C3
R3724 1K
Q3707 RTIP441
ZD3703 HZS12-C3
R3708 4.7K
R3709 39K
R3710 47K
IC3703 M5278L56
9V REG
D3706 ISS254
C3702 47/10
C3703 0.01
D3709 ISS254
C3707 0.022
R3723 1K
ZD3704 HZ2B
C3701 0.01
PG3704
1 GND
To YTJ (JACK) CN1504
CN3703
1 GND
To YTJ (JACK) CN1503
CN3701
1 12V
To SSA (AUDIO I/O) CN551
A5V
IR CONVERTER P.C.B

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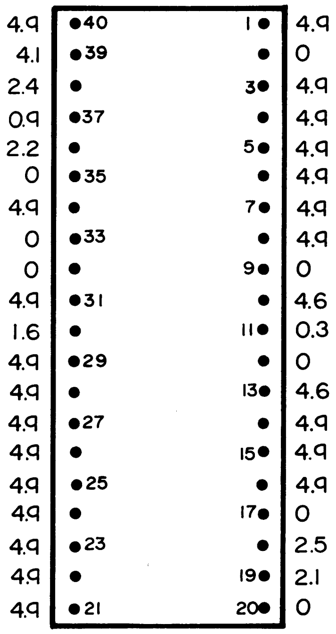
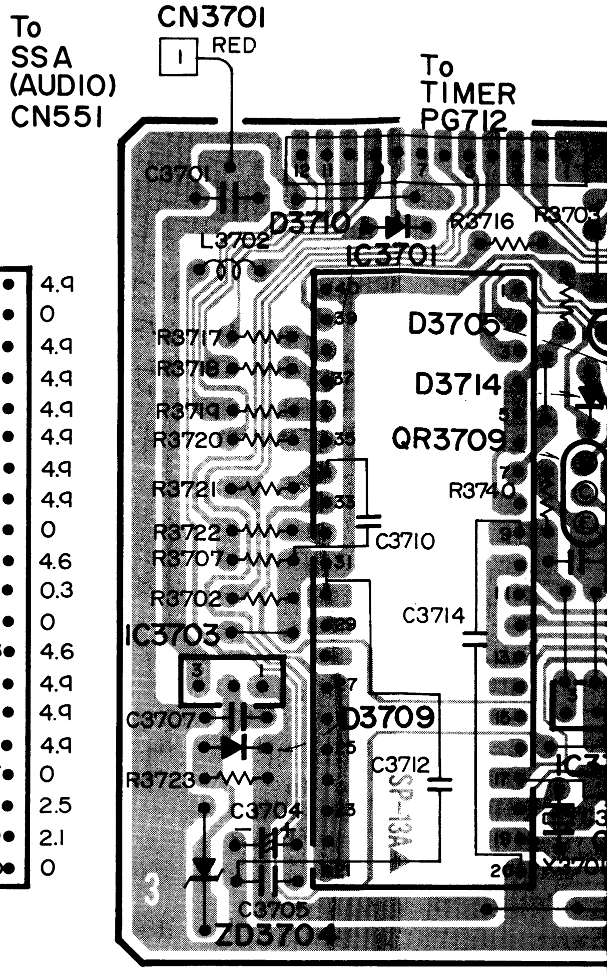
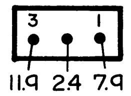
IC3701

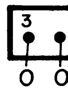

40 4.9
39 4.1
38 2.4
37 0.9
36 2.2
35 0
34 4.9
33 0
32 0
31 4.9
30 1.6
29 4.9
28 4.9
27 4.9
26 4.9
25 4.9
24 4.9
23 4.9
22 4.9
21 4.9
1 4.9
2 0
3 4.9
4 4.9
5 4.9
6 4.9
7 4.9
8 4.9
9 0
10 4.6
11 0.3
12 0
13 4.6
14 4.9
15 4.9
16 4.9
17 0
18 2.5
19 2.1
20 0

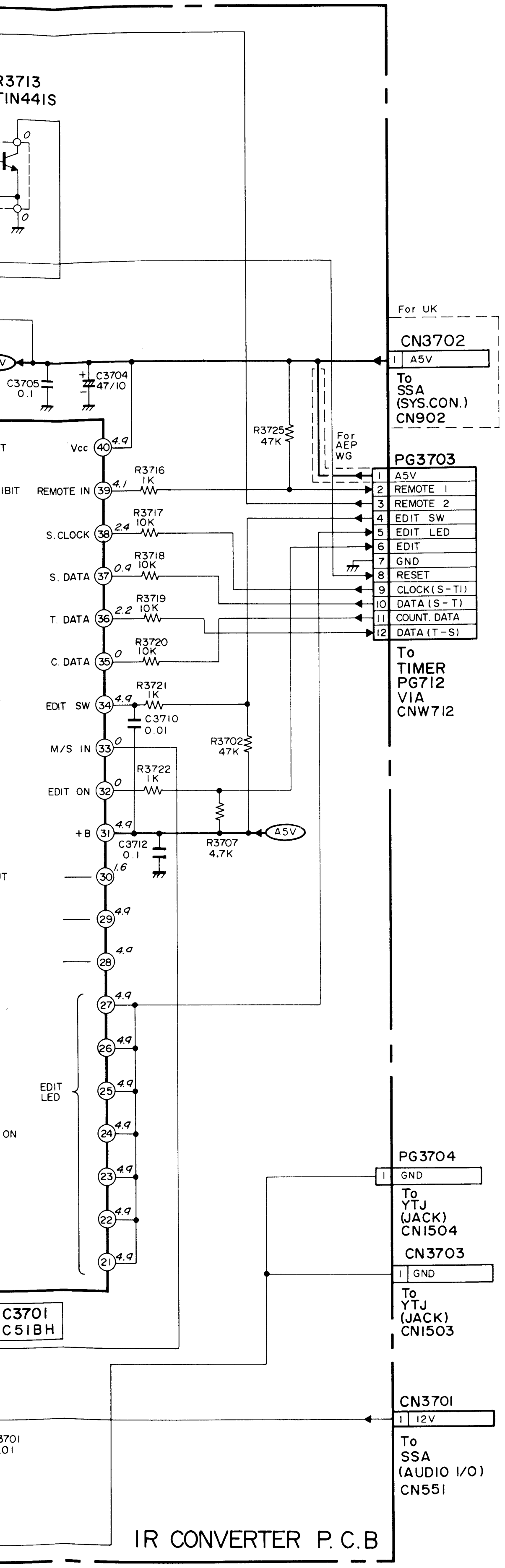

To SSA (AUDIO) CN551
CN3701
1 RED
To TIMER PG712
C3701
L3702
D3710
IC3701
R3716
D3705
D3714
QR3709
R3717
R3718
R3719
R3720
R3721
R3722
R3707
R3702
R3740
C3710
C3714
IC3703
C3707
D3709
C3712
R3723
C3704
SP-13A
C3705
ZD3704

IC3703

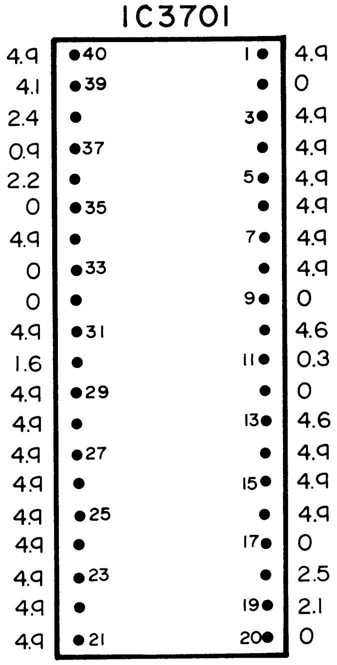


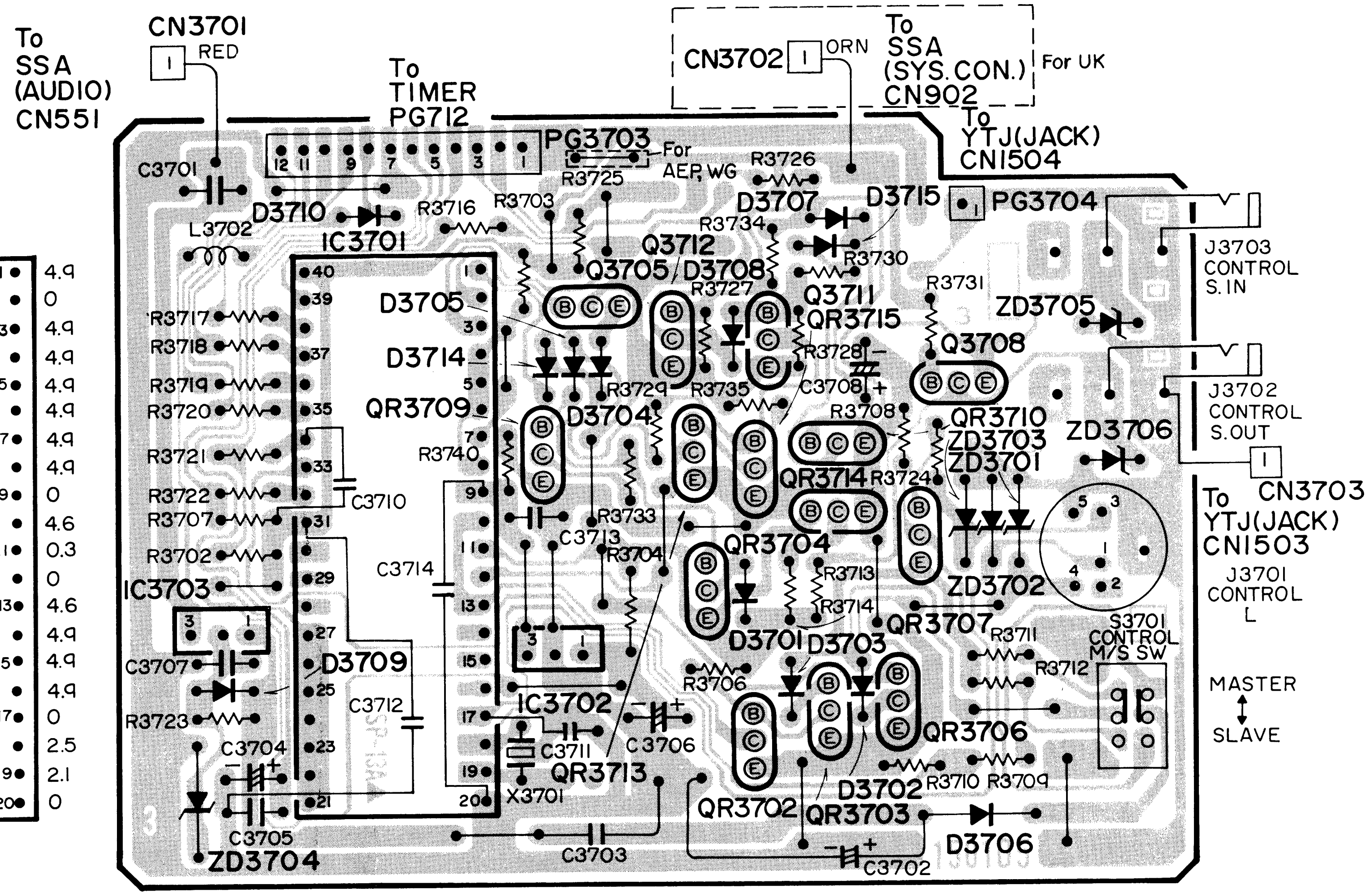
IC37




R3713
TIN441S
For UK
CN3702
A5V
To SSA (SYS.CON.) CN902
C3705 0.1
C3704 47/10
Vcc 40 4.9
REMOTE IN 39 4.1
S.CLOCK 38 2.4
S.DATA 37 0.9
T.DATA 36 2.2
C.DATA 35 0
EDIT SW 34 4.9
M/S IN 33 0
EDIT ON 32 0
+B 31 4.9
30 1.6
29 4.9
28 4.9
27 4.9
26 4.9
25 4.9
24 4.9
23 4.9
22 4.9
21 4.9
EDIT LED
R3716 1K
R3717 10K
R3718 10K
R3719 10K
R3720 10K
R3721 1K
C3710 0.01
R3722 1K
R3725 47K
R3702 47K
R3707 4.7K
C3712 0.1
A5V
For AEP WG
PG3703
1 A5V
2 REMOTE 1
3 REMOTE 2
4 EDIT SW
5 EDIT LED
6 EDIT
7 GND
8 RESET
9 CLOCK (S-T)
10 DATA (S-T)
11 COUNT DATA
12 DATA (T-S)
To TIMER PG712 VIA CNW712
PG3704
1 GND
To YTJ (JACK) CN1504
CN3703
1 GND
To YTJ (JACK) CN1503
C3701
C51BH
CN3701
1 12V
To SSA (AUDIO I/O) CN551
IR CONVERTER P.C.B

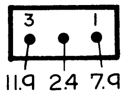
IC3701


4.9 40 1 4.9
4.1 39 2 0
2.4 38 3 4.9
0.9 37 4 4.9
2.2 36 5 4.9
0 35 6 4.9
4.9 34 7 4.9
0 33 8 4.9
0 32 9 0
4.9 31 10 4.6
1.6 30 11 0.3
4.9 29 12 0
4.9 28 13 4.6
4.9 27 14 4.9
4.9 26 15 4.9
4.9 25 16 4.9
4.9 24 17 0
4.9 23 18 2.5
4.9 22 19 2.1
4.9 21 20 0

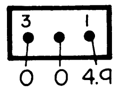

To SSA (AUDIO) CN551
CN3701
RED
To TIMER PG712
CN3702
ORN
To SSA (SYS.CON.) CN902
For UK
To YTJ(JACK) CN1504
PG3703
For AEP, WG
R3725
R3726
C3701
D3710
R3716
R3703
L3702
IC3701
D3707
D3715
PG3704
R3734
Q3712
R3730
Q3705/D3708
R3727
Q3711
QR3715
R3731
J3703 CONTROL S.IN
D3705
ZD3705
R3717
R3718
R3719
R3720
R3721
R3722
R3707
R3702
D3714
QR3709
R3728
C3708
Q3708
R3729
R3735
D3704
R3708
QR3710
ZD3703
ZD3701
ZD3706
J3702 CONTROL S.OUT
R3740
QR3714
R3724
C3710
C3713
R3733
R3704
QR3704
C3714
IC3703
R3713
R3714
ZD3702
To YTJ(JACK) CN1503
CN3703
J3701 CONTROL L
D3709
D3701
D3703
QR3707
R3711
S3701 CONTROL M/S SW
R3712
C3707
R3706
MASTER
SLAVE
C3712
IC3702
C3706
R3723
C3704
C3711
QR3706
QR3713
X3701
D3702
R3710
R3709
QR3702
QR3703
C3705
C3703
D3706
ZD3704
C3702

IR CONVERTER P.C.B

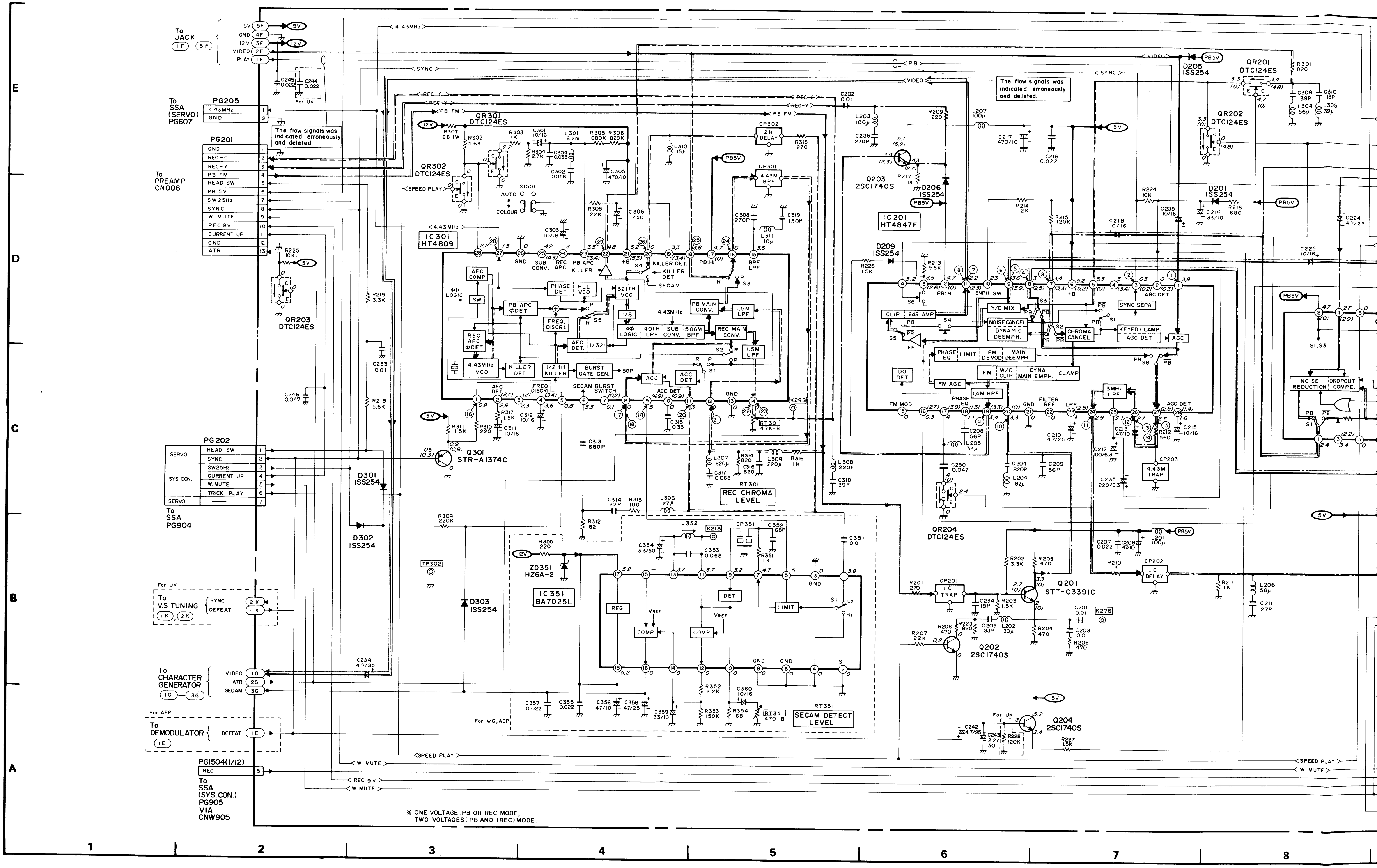
IC3703



IC3702

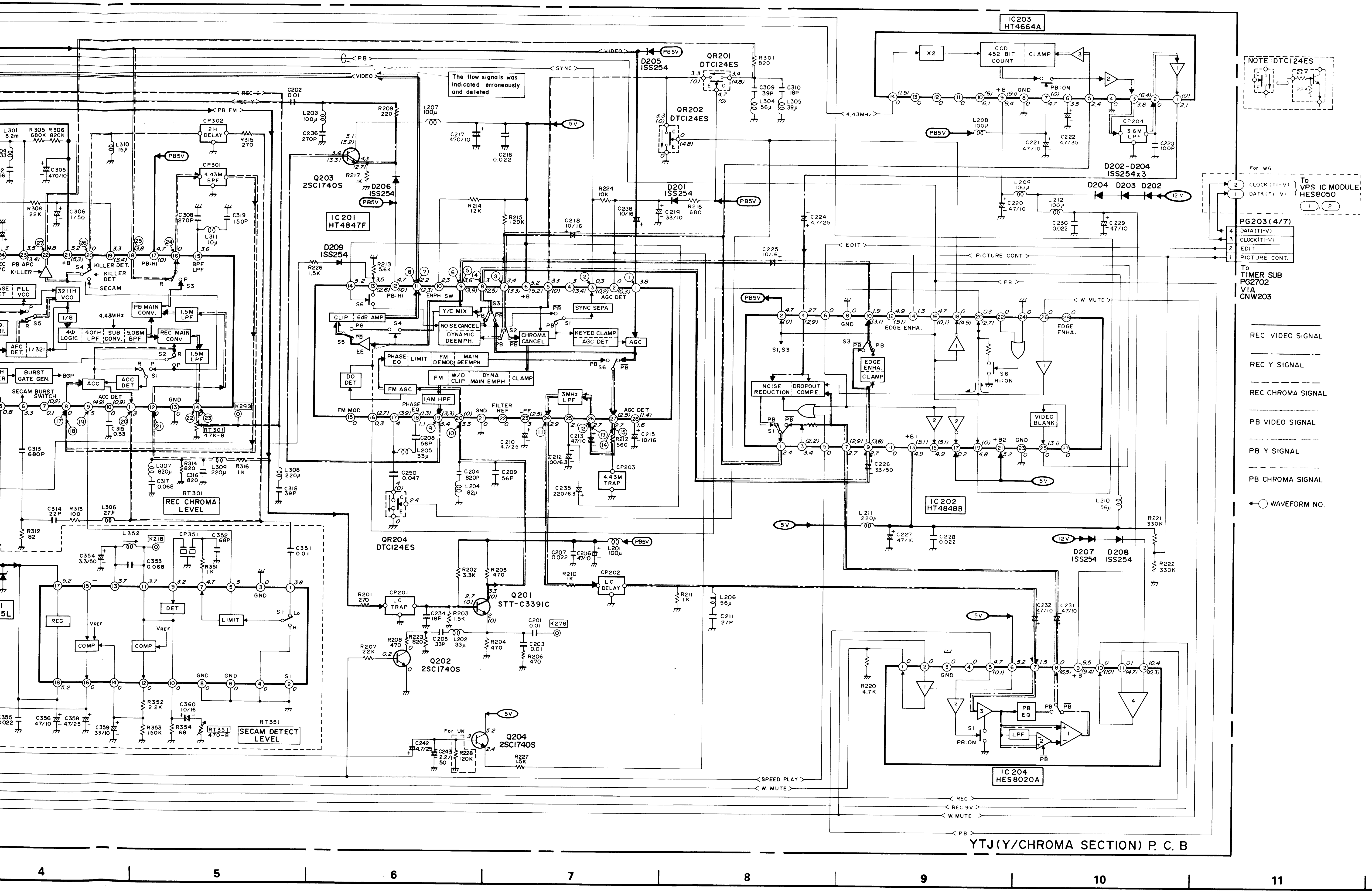


Y/CHROMA



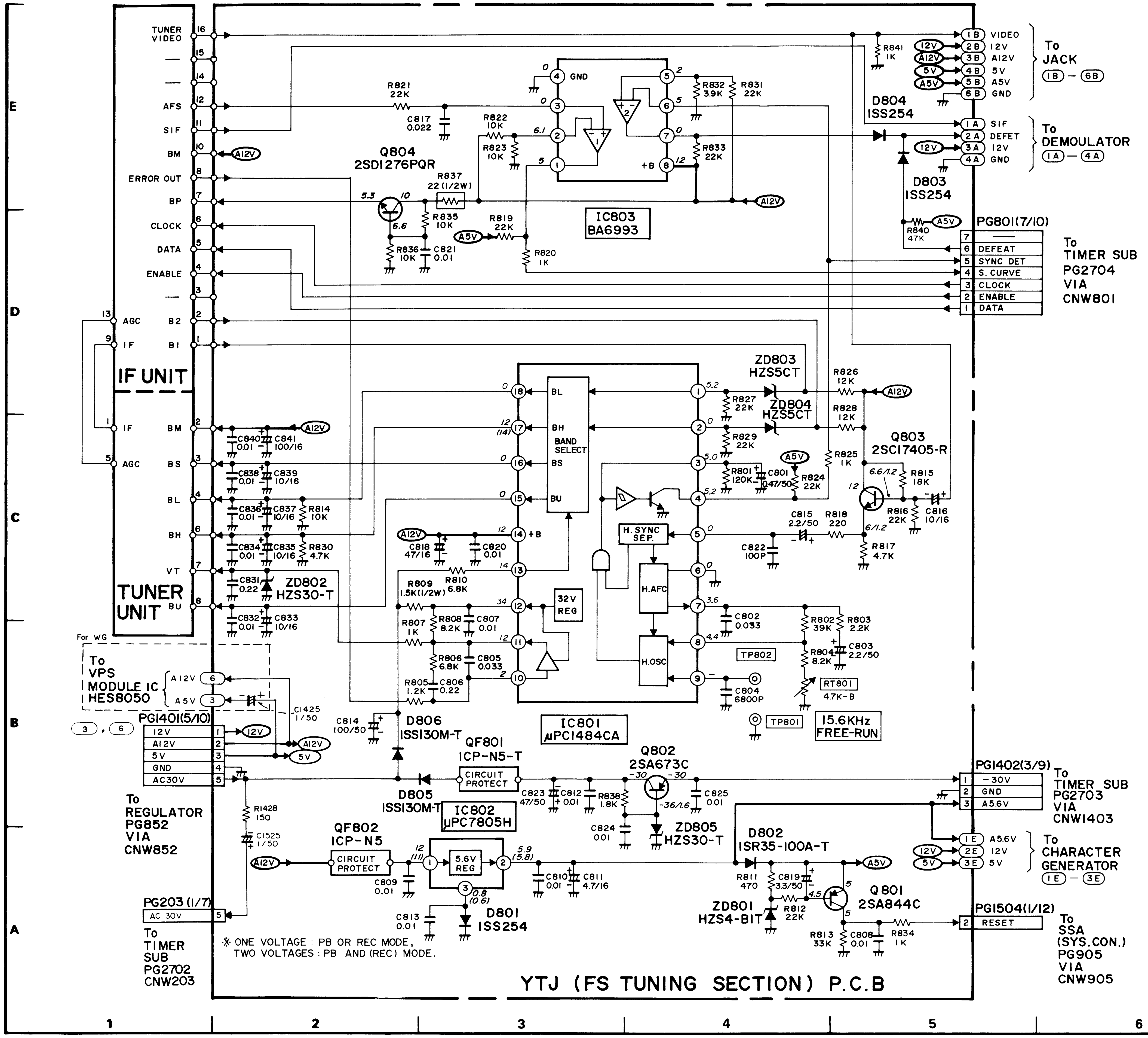
To JACK (1F)-(5F)
5V 5F
GND 4F
12V 3F
VIDEO 2F
PLAY 1F
C245 0.022
C244 0.022
For UK
To SSA (SERVO) PG607
PG205
4.43MHz
GND
To PREAMP CN006
PG201
GND
REC-C
REC-Y
PB FM
HEAD SW
PB 5V
SW25Hz
SYNC
W. MUTE
REC 9V
CURRENT UP
GND
ATR
The flow signals was indicated erroneously and deleted.
R225 10K
QR203 DTC124ES
QR301 DTC124ES
QR302 DTC124ES
R307 68 1W
R302 5.6K
R303 1K
C301 10/16
R304 2.7K
C304 0.033
L301 8.2m
C302 0.056
R305 680K
R306 820K
C305 470/10
S1501
AUTO
COLOUR
R308 22K
C306 1/50
C303 10/16
L310 15μ
CP302 2H DELAY
R315 270
CP301 4.43M BPF
C308 270P
L311 10μ
C319 150P
IC301 HT4809
APC COMP
4Φ LOGIC
SW
PB APC ΦDET
PHASE DET
PLL VCO
321fH VCO
1/8
4Φ LOGIC
401fH LPF
SUB CONV.
5.06M BPF
PB MAIN CONV.
1.5M LPF
REC MAIN CONV.
1.5M LPF
REC APC ΦDET
FREQ. DISCRI.
AFC DET.
1/321
4.43MHz VCO
KILLER DET
1/2 fH KILLER
BURST GATE GEN.
BGP
ACC
ACC DET
PB APC KILLER
KILLER DET.
SECAM
AFC DET
FREQ. DISCRI.
SECAM BURST SWITCH
ACC DET
K293
RT301 47K-B
R219 3.3K
C233 0.01
C246 0.047
R218 5.6K
R311 1.5K
R310 220
R317 1.5K
C311 10/16
C312 10/16
Q301 STR-A1374C
C313 680P
C314 22P
R313 100
L306 27μ
R312 82
L307 820μ
C317 0.068
R314 820
C316 820
L309 220μ
R316 1K
L308 220μ
C318 39P
RT301 REC CHROMA LEVEL
To SSA PG904
PG202
SERVO
SYS. CON.
HEAD SW
SYNC
SW25Hz
CURRENT UP
W. MUTE
TRICK PLAY
D301 1SS254
D302 1SS254
D303 1SS254
R309 220K
TP302
For UK
To V.S TUNING (1K), (2K)
SYNC
DEFEAT
To CHARACTER GENERATOR (1G)-(3G)
VIDEO
ATR
SECAM
C239 4.7/35
For AEP
To DEMODULATOR (1E)
DEFEAT
For WG, AEP
R355 220
ZD351 HZ6A-2
IC351 BA7025L
L352
K218
CP351
C352 68P
C354 3.3/50
C353 0.068
R351 1K
C351 0.01
REG
COMP
COMP
DET
LIMIT
GND
C357 0.022
C355 0.022
C356 47/10
C358 47/25
C359 33/10
R352 2.2K
R353 150K
C360 10/16
R354 68
RT351 470-B
RT351 SECAM DETECT LEVEL
PGI504(1/12)
REC
To SSA (SYS. CON.) PG905 VIA CNW905
SPEED PLAY
W. MUTE
REC 9V
4.43MHz
SYNC
REC-C
REC-Y
PB FM
VIDEO
PB
C202 0.01
L203 100μ
C236 270P
Q203 2SC1740S
R217 1K
D206 1SS254
R209 220
L207 100μ
C217 470/10
C216 0.022
IC201 HT4847F
D209 1SS254
R226 1.5K
R213 56K
R214 12K
R215 120K
C218 10/16
R224 10K
C238 10/16
D201 1SS254
C219 33/10
R216 680
D205 1SS254
QR201 DTC124ES
QR202 DTC124ES
R301 820
C309 39P
C310 18P
L304 56μ
L305 39μ
C224 4.7/25
C225 10/16
CLIP
6dB AMP
EE
Y/C MIX
NOISE CANCEL
DYNAMIC DEEMPH.
CHROMA CANCEL
SYNC SEPA
KEYED CLAMP
AGC DET
AGC
PHASE EQ
LIMIT
FM DEMOD
MAIN DEEMPH.
DO DET
FM
W/D CLIP
DYNA MAIN EMPH.
CLAMP
FM AGC
14M HPF
3MHz LPF
ENPH SW
PB:HI
FM MOD
PHASE EQ
FILTER REF
LPF
AGC DET
C208 56P
L205 33μ
C210 4.7/25
C213 47/10
R212 560
C215 10/16
C212 100/6.3
C235 220/6.3
CP203 4.43M TRAP
C250 0.047
C204 820P
L204 82μ
C209 56P
QR204 DTC124ES
C207 0.022
C206 47/10
L201 100μ
R210 1K
CP202 LC DELAY
R211 1K
L206 56μ
C211 27P
R202 3.3K
R205 470
Q201 STT-C3391C
R201 270
CP201 LC TRAP
C234 18P
R203 1.5K
C201 0.01
K276
R208 470
R223 820
C205 33P
L202 33μ
R204 470
C203 0.01
R206 470
R207 22K
Q202 2SC1740S
Q204 2SC1740S
For UK
C242 4.7/25
C243 2.2/50
R228 120K
R227 1.5K
NOISE REDUCTION
DROPOUT COMPE.
S1, S3
5V
12V
PB5V
1
2
3
4
5
6
7
8
E
D
C
B
A

※ ONE VOLTAGE: PB OR REC MODE,
TWO VOLTAGES: PB AND (REC) MODE.


IC203 HT4664A
X2
CCD 452 BIT COUNT
CLAMP
PB:ON
CP204 3.6M LPF
D202-D204 1SS254x3
NOTE DTC124ES
For WG
CLOCK(TI-V)
DATA(TI-V)
To VPS IC MODULE HES8050
PG203(4/7)
DATA(TI-V)
CLOCK(TI-V)
EDIT
PICTURE CONT.
To TIMER SUB PG2702 VIA CNW203
REC VIDEO SIGNAL
REC Y SIGNAL
REC CHROMA SIGNAL
PB VIDEO SIGNAL
PB Y SIGNAL
PB CHROMA SIGNAL
WAVEFORM NO.
D205 1SS254
QR201 DTC124ES
QR202 DTC124ES
D201 1SS254
Q203 2SC1740S
D206 1SS254
IC201 HT4847F
D209 1SS254
CLIP
6dB AMP
Y/C MIX
NOISE CANCEL
DYNAMIC DEEMPH.
CHROMA CANCEL
SYNC SEPA
KEYED CLAMP
AGC DET
AGC
PHASE EQ
LIMIT
FM DEMOD
MAIN DEEMPH.
FM
W/D CLIP
DYNA MAIN EMPH.
CLAMP
DO DET
FM AGC
14M HPF
3MHz LPF
FM MOD
FILTER REF
LPF
ENPH SW
PB:HI
CP203 4.43M TRAP
QR204 DTC124ES
CP201 LC TRAP
Q201 STT-C3391C
Q202 2SC1740S
Q204 2SC1740S
For UK
CP202 LC DELAY
IC202 HT4848B
EDGE ENHA.
NOISE REDUCTION
DROPOUT COMPE.
VIDEO BLANK
S6 HI:ON
D207 1SS254
D208 1SS254
IC204 HES8020A
PB EQ
LPF
PB:ON
SPEED PLAY
W. MUTE
REC
REC 9V
PB
SYNC
VIDEO
REC-C
REC-Y
PB FM
4.43MHz
PB5V
5V
12V
CP302 2H DELAY
CP301 4.43M BPF
PB APC
KILLER DET.
KILLER
SECAM
321fH VCO
PLL VCO
1/8
4Φ LOGIC
40fH LPF
SUB CONV.
5.06M BPF
PB MAIN CONV.
1.5M LPF
REC MAIN CONV.
AFC DET.
1/321
BURST GATE GEN.
BGP
ACC
ACC DET
SECAM BURST SWITCH
RT301 47K-B
REC CHROMA LEVEL
CP351
REG
COMP
DET
LIMIT
RT351 470-B
SECAM DETECT LEVEL
YTJ (Y/CHROMA SECTION) P. C. B
4
5
6
7
8
9
10
11
12

The flow signals was indicated erroneously and deleted.

FS TUNING (For WG, AEP)



TUNER UNIT
IF UNIT
TUNER VIDEO
AFS
SIF
BM
ERROR OUT
BP
CLOCK
DATA
ENABLE
AGC
IF
B2
B1
BS
BL
BH
VT
BU
For WG
To VPS MODULE IC HES8050
A12V
A5V
C1425 1/50
PG1401(5/10)
12V
A12V
5V
GND
AC30V
To REGULATOR PG852 VIA CNW852
R1428 150
C1525 1/50
PG203 (1/7)
AC 30V
To TIMER SUB PG2702 CNW203
IC803 BA6993
Q804 2SD1276PQR
R821 22K
C817 0.022
R822 10K
R823 10K
R837 22 (1/2W)
R835 10K
R836 10K
C821 0.01
R819 22K
R820 1K
R832 3.9K
R831 22K
R833 22K
R841 1K
D804 1SS254
D803 1SS254
R840 47K
To JACK (1B) − (6B)
VIDEO
12V
A12V
5V
A5V
GND
To DEMOULATOR (1A) − (4A)
SIF
DEFET
12V
GND
PG801(7/10)
DEFEAT
SYNC DET
S. CURVE
CLOCK
ENABLE
DATA
To TIMER SUB PG2704 VIA CNW801
IC801 μPC1484CA
BAND SELECT
H. SYNC SEP.
H.AFC
H.OSC
32V REG
ZD803 HZS5CT
ZD804 HZS5CT
R826 12K
R828 12K
R827 22K
R829 22K
R825 1K
Q803 2SC17405-R
R815 18K
R816 22K
C816 10/16
R817 4.7K
R801 120K
C801 0.47/50
R824 22K
C815 2.2/50
R818 220
C822 100P
C802 0.033
R802 39K
R803 2.2K
C803 2.2/50
R804 8.2K
RT801 4.7K-B
C804 6800P
TP802
TP801
15.6KHz FREE-RUN
C840 0.01
C841 100/16
C838 0.01
C839 10/16
C836 0.01
C837 10/16
R814 10K
C834 0.01
C835 10/16
R830 4.7K
C831 0.22
ZD802 HZS30-T
C832 0.01
C833 10/16
C818 47/16
C820 0.01
R809 1.5K(1/2W)
R810 6.8K
R807 1K
R808 8.2K
C807 0.01
R806 6.8K
C805 0.033
R805 1.2K
C806 0.22
C814 100/50
D806 1SS130M-T
QF801 ICP-N5-T
CIRCUIT PROTECT
D805 1SS130M-T
Q802 2SA673C
C823 47/50
C812 0.01
R838 1.8K
C825 0.01
C824 0.01
ZD805 HZS30-T
IC802 μPC7805H
QF802 ICP-N5
5.6V REG
C809 0.01
C810 0.01
C811 4.7/16
C813 0.01
D801 1SS254
D802 1SR35-100A-T
R811 470
C819 33/50
R812 22K
ZD801 HZS4-B1T
Q801 2SA844C
R813 33K
C808 0.01
R834 1K
PG1402(3/9)
−30V
GND
A5.6V
To TIMER SUB PG2703 VIA CNW1403
To CHARACTER GENERATOR (1E) − (3E)
PG1504(1/12)
RESET
To SSA (SYS.CON.) PG905 VIA CNW905
※ ONE VOLTAGE : PB OR REC MODE, TWO VOLTAGES : PB AND (REC) MODE.
YTJ (FS TUNING SECTION) P.C.B
E
D
C
B
A
1
2
3
4
5
6
7
8

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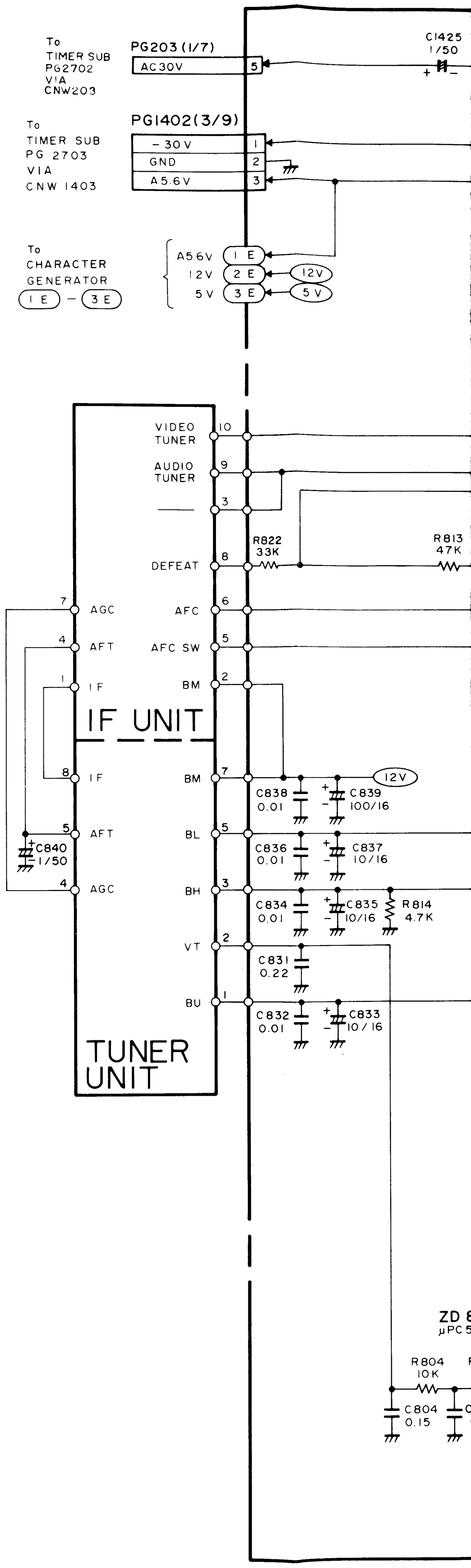
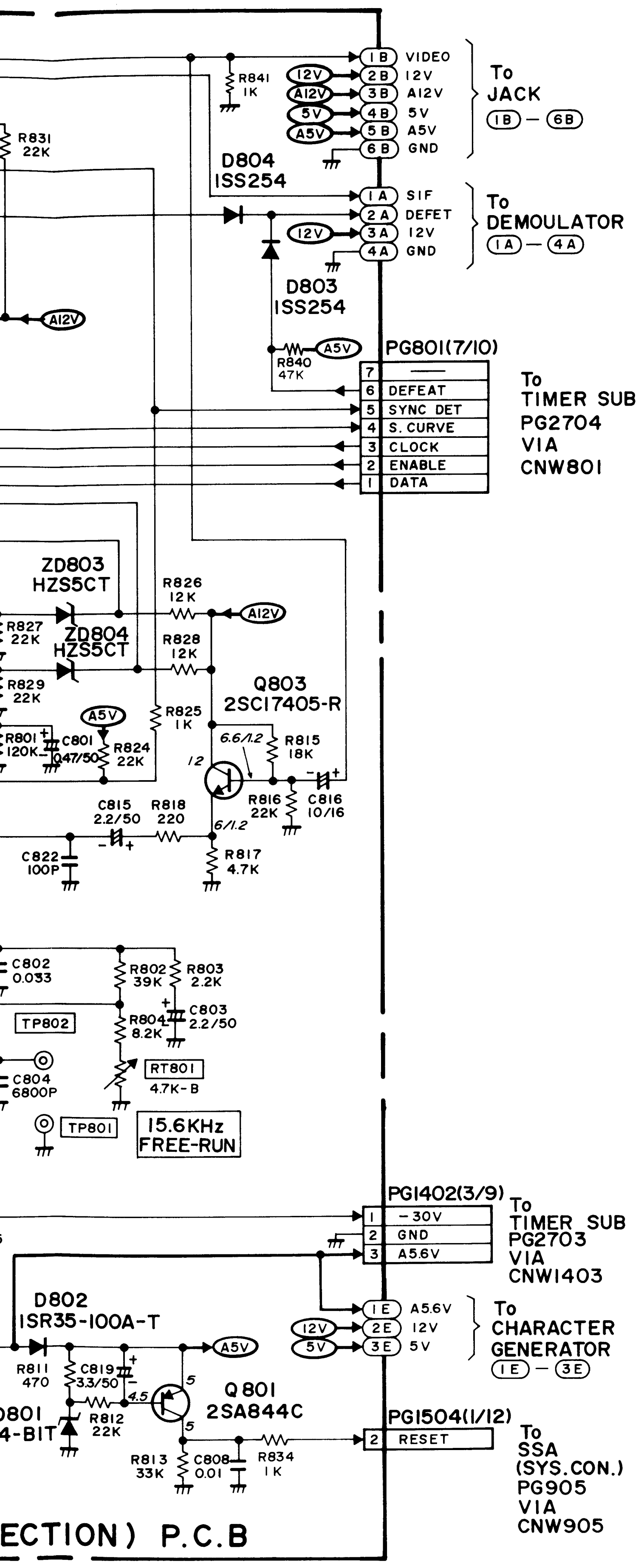
RF CONVERTER	5-86

VS TUNING (For



To TIMER SUB PG2702 VIA CNW203
PG203 (1/7)
AC30V
C1425 1/50
To TIMER SUB PG 2703 VIA CNW 1403
PG1402(3/9)
−30V
GND
A5.6V
To CHARACTER GENERATOR (1E) − (3E)
A5.6V
12V
5V
VIDEO TUNER
AUDIO TUNER
DEFEAT
AFC
AFC SW
BM
R822 33K
R813 47K
AGC
AFT
IF
IF UNIT
BL
BH
VT
BU
C838 0.01
C839 100/16
C836 0.01
C837 10/16
C840 1/50
C834 0.01
C835 10/16
R814 4.7K
C831 0.22
C832 0.01
C833 10/16
TUNER UNIT
R804 10K
C804 0.15
8

VS TUNING (For UK)



R841
1K
12V
A12V
5V
A5V
1B VIDEO
2B 12V
3B A12V
4B 5V
5B A5V
6B GND
To JACK 1B – 6B
R831
22K
D804
1SS254
1A SIF
2A DEFET
3A 12V
4A GND
To DEMOULATOR 1A – 4A
D803
1SS254
R840
47K
PG801(7/10)
7 —
6 DEFEAT
5 SYNC DET
4 S. CURVE
3 CLOCK
2 ENABLE
1 DATA
To TIMER SUB PG2704 VIA CNW801
ZD803
HZS5CT
ZD804
HZS5CT
R826
12K
R827
22K
R828
12K
R829
22K
R825
1K
Q803
2SC17405-R
R801
120K
C801
0.47/50
R824
22K
R815
18K
R816
22K
C816
10/16
C815
2.2/50
R818
220
R817
4.7K
C822
100P
C802
0.033
R802
39K
R803
2.2K
C803
2.2/50
R804
8.2K
TP802
RT801
4.7K-B
C804
6800P
TP801
15.6KHz FREE-RUN
PG1402(3/9)
1 –30V
2 GND
3 A5.6V
To TIMER SUB PG2703 VIA CNW1403
D802
1SR35-100A-T
1E A5.6V
2E 12V
3E 5V
To CHARACTER GENERATOR 1E – 3E
R811
470
C819
33/50
Q801
2SA844C
R812
22K
R813
33K
C808
0.01
R834
1K
PG1504(1/12)
2 RESET
To SSA (SYS.CON.) PG905 VIA CNW905
D801
4-BIT
ECTION) P.C.B

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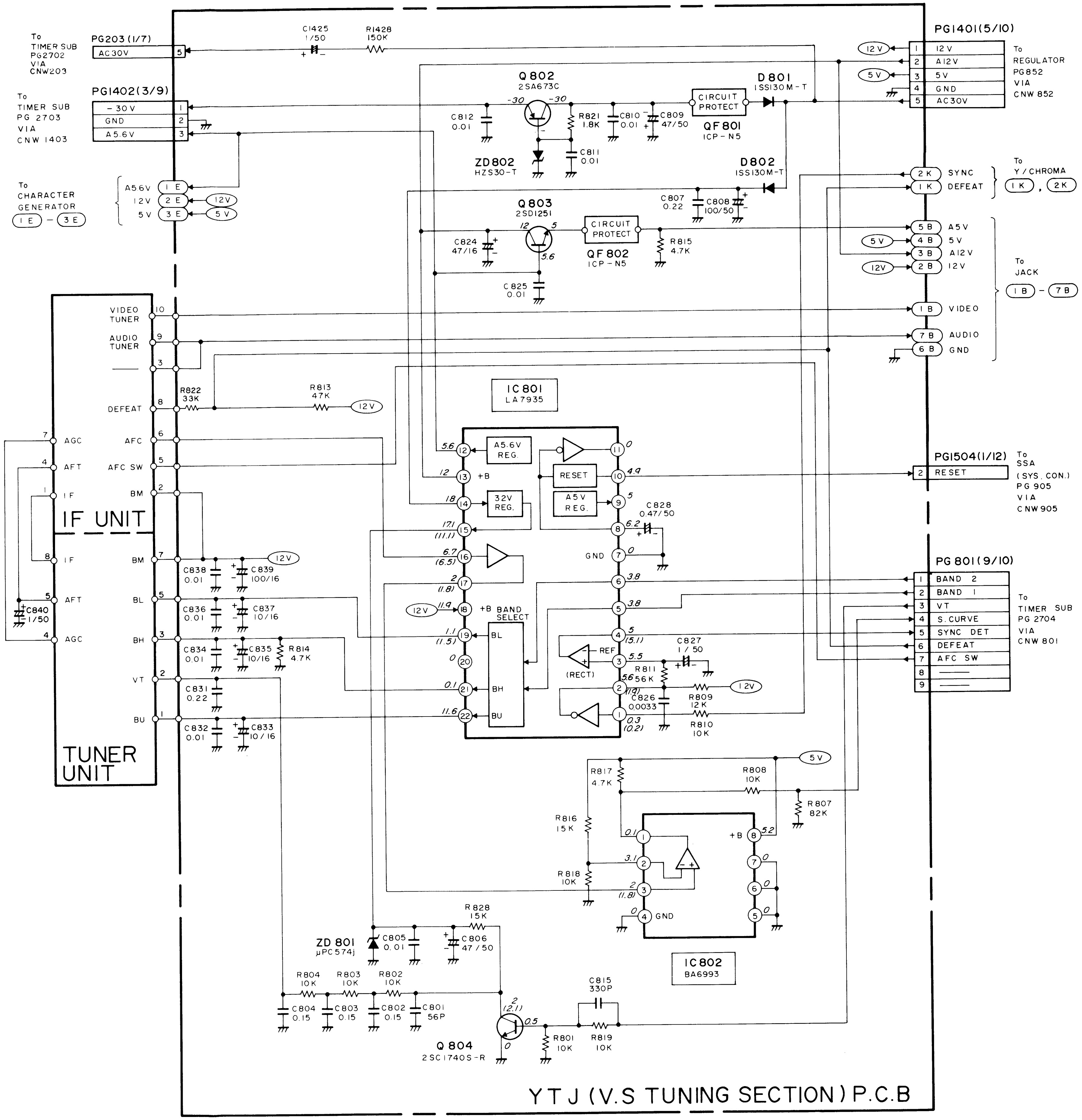
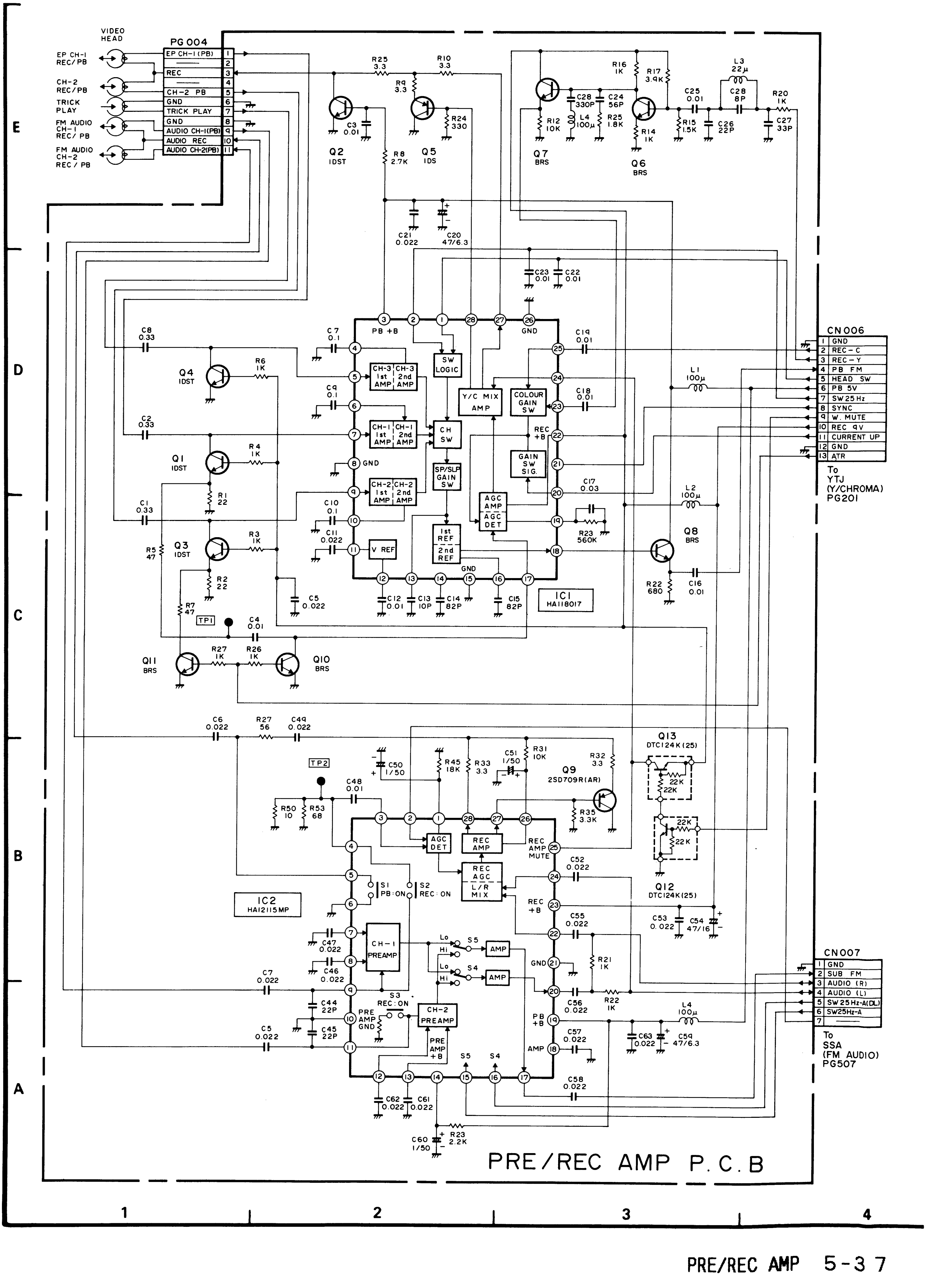


To TIMER SUB PG2702 VIA CNW203
PG203(1/7)
AC30V
C1425
1/50
R1428
150K
To TIMER SUB PG 2703 VIA CNW 1403
PG1402(3/9)
–30V
GND
A5.6V
To CHARACTER GENERATOR 1E – 3E
A5.6V 1E
12V 2E
5V 3E
Q802
2SA673C
C812
0.01
R821
1.8K
C810
0.01
C809
47/50
CIRCUIT PROTECT
QF801
ICP-N5
D801
1SS130M-T
ZD802
HZS30-T
C811
0.01
D802
1SS130M-T
C807
0.22
C808
100/50
Q803
2SD1251
C824
47/16
CIRCUIT PROTECT
QF802
ICP-N5
R815
4.7K
C825
0.01
PG1401(5/10)
1 12V
2 A12V
3 5V
4 GND
5 AC30V
To REGULATOR PG852 VIA CNW 852
2K SYNC
1K DEFEAT
To Y/CHROMA 1K, 2K
5B A5V
4B 5V
3B A12V
2B 12V
1B VIDEO
7B AUDIO
6B GND
To JACK 1B – 7B
VIDEO TUNER
AUDIO TUNER
DEFEAT
AGC
AFT
IF
AFC
AFC SW
BM
IF UNIT
BL
BH
VT
BU
TUNER UNIT
C840
1/50
R822
33K
R813
47K
IC801
LA7935
A5.6V REG.
+B
32V REG.
RESET
A5V REG.
C828
0.47/50
GND
+B BAND SELECT
REF
(RECT)
C827
1/50
R811
56K
C826
0.0033
R809
12K
R810
10K
C838
0.01
C839
100/16
C836
0.01
C837
10/16
C834
0.01
C835
10/16
R814
4.7K
C831
0.22
C832
0.01
C833
10/16
PG1504(1/12)
2 RESET
To SSA (SYS. CON.) PG 905 VIA CNW 905
PG 801(9/10)
1 BAND 2
2 BAND 1
3 VT
4 S.CURVE
5 SYNC DET
6 DEFEAT
7 AFC SW
To TIMER SUB PG 2704 VIA CNW 801
R817
4.7K
R808
10K
R807
82K
R816
15K
R818
10K
IC802
BA6993
ZD801
μPC574J
C805
0.01
R828
15K
C806
47/50
R804
10K
R803
10K
R802
10K
C804
0.15
C803
0.15
C802
0.15
C801
56P
C815
330P
Q804
2SC1740S-R
R801
10K
R819
10K
YTJ (V.S TUNING SECTION) P.C.B

PRE/REC AMP


VIDEO HEAD
PG004
EP CH-1 REC/PB
CH-2 REC/PB
TRICK PLAY
FM AUDIO CH-1 REC/PB
FM AUDIO CH-2 REC/PB
1 EP CH-1 (PB)
2 ——
3 REC
4 ——
5 CH-2 PB
6 GND
7 TRICK PLAY
8 GND
9 AUDIO CH-1(PB)
10 AUDIO REC
11 AUDIO CH-2(PB)
R25 3.3
R10 3.3
R9 3.3
Q2 IDST
Q5 IDS
C3 0.01
R24 330
R8 2.7K
C21 0.022
C20 47/6.3
R16 1K
R17 3.9K
C28 330P
C24 56P
L4 100μ
R25 1.8K
R12 10K
R14 1K
Q7 BRS
Q6 BRS
L3 22μ
C28 8P
C25 0.01
R15 1.5K
C26 22P
R20 1K
C27 33P
C23 0.01
C22 0.01
PB +B
GND
SW LOGIC
Y/C MIX AMP
COLOUR GAIN SW
CH-3 1st AMP
CH-3 2nd AMP
CH-1 1st AMP
CH-1 2nd AMP
CH-2 1st AMP
CH-2 2nd AMP
CH SW
SP/SLP GAIN SW
GAIN SW SIG.
AGC AMP
AGC DET
1st REF
2nd REF
V REF
REC +B
C8 0.33
C7 0.1
Q4 IDST
R6 1K
C9 0.1
C2 0.33
Q1 IDST
R4 1K
R1 22
C1 0.33
C10 0.1
C11 0.022
R5 47
Q3 IDST
R3 1K
R2 22
C5 0.022
R7 47
TP1
C4 0.01
C12 0.01
C13 10P
C14 82P
C15 82P
IC1 HA118017
C19 0.01
C18 0.01
C17 0.03
L1 100μ
L2 100μ
R23 560K
Q8 BRS
R22 680
C16 0.01
Q11 BRS
R27 1K
R26 1K
Q10 BRS
CN006
1 GND
2 REC-C
3 REC-Y
4 PB FM
5 HEAD SW
6 PB 5V
7 SW 25Hz
8 SYNC
9 W. MUTE
10 REC 9V
11 CURRENT UP
12 GND
13 ATR
To YTJ (Y/CHROMA) PG201
C6 0.022
R27 56
C49 0.022
TP2
C50 1/50
R45 18K
R33 3.3
C51 1/50
R31 10K
R32 3.3
Q9 2SD709R(AR)
R35 3.3K
Q13 DTC124K(25)
22K
22K
Q12 DTC124K(25)
C48 0.01
R50 10
R53 68
AGC DET
REC AMP
REC AMP MUTE
REC AGC
L/R MIX
S1 PB: ON
S2 REC: ON
IC2 HA12115MP
C52 0.022
REC +B
C53 0.022
C54 47/16
C47 0.022
C46 0.022
CH-1 PREAMP
Lo Hi S5
Lo Hi S4
AMP
GND
C55 0.022
R21 1K
C7 0.022
S3 REC: ON
PRE AMP GND
CH-2 PREAMP
PRE AMP +B
C44 22P
C45 22P
C5 0.022
C56 0.022
R22 1K
PB +B
C57 0.022
L4 100μ
C63 0.022
C59 47/6.3
AMP
C58 0.022
S5
S4
C62 0.022
C61 0.022
C60 1/50
R23 2.2K
CN007
1 GND
2 SUB FM
3 AUDIO (R)
4 AUDIO (L)
5 SW25Hz-A(DL)
6 SW25Hz-A
7 ——
To SSA (FM AUDIO) PG507
PRE/REC AMP P.C.B
E
D
C
B
A
1
2
3
4

V.P.S (For WG)

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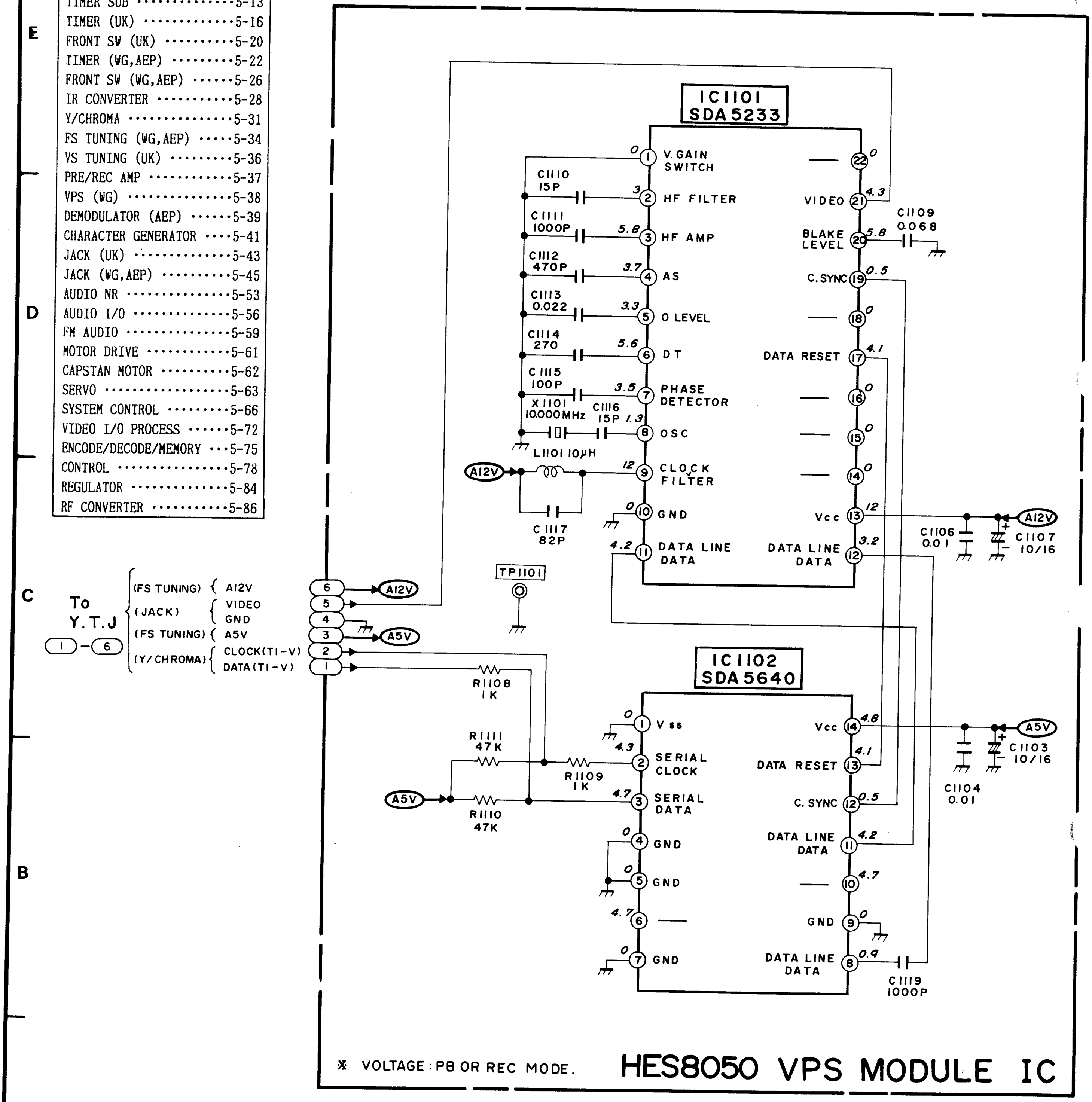
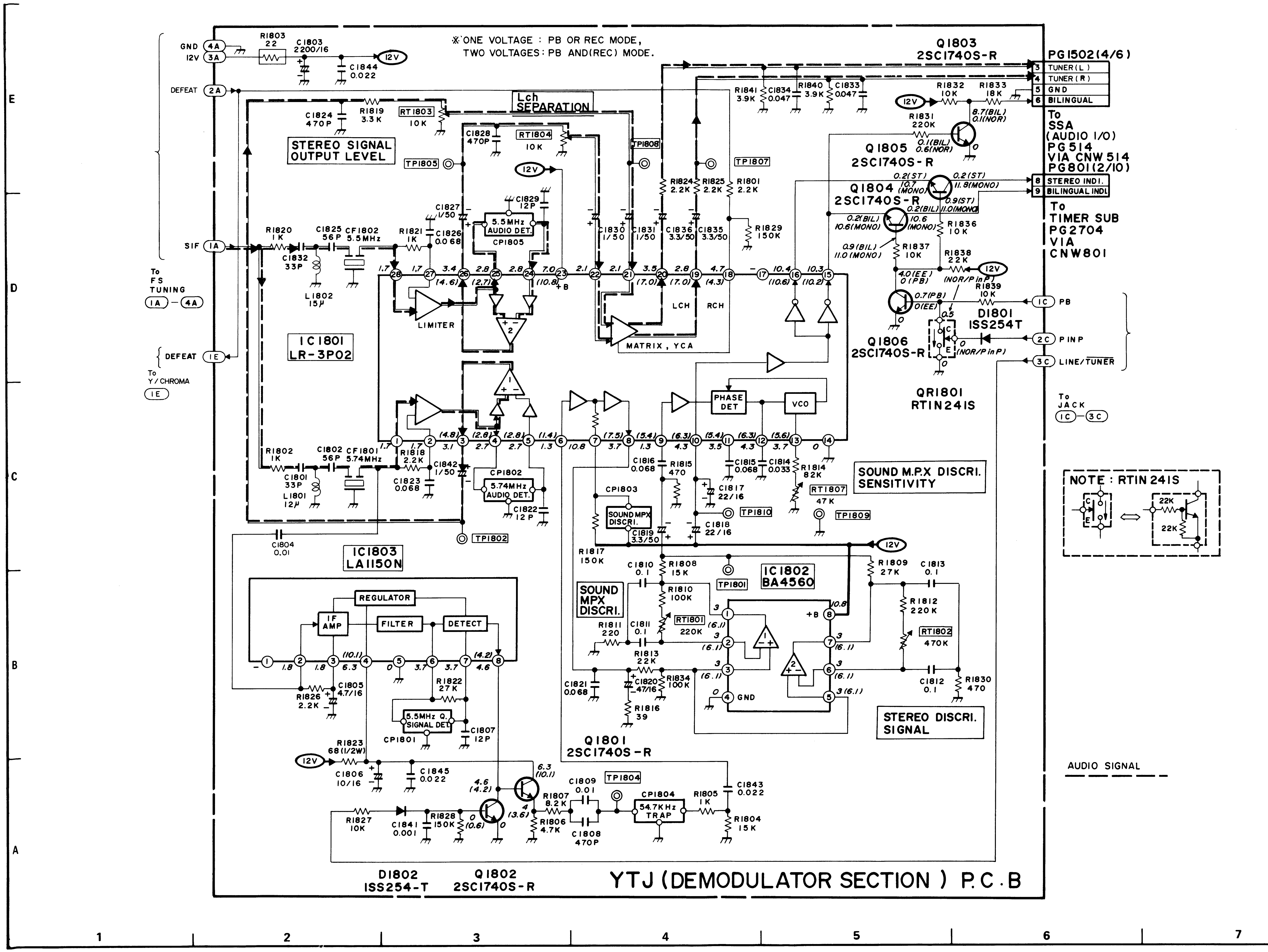


E
D
C
B
A
1
2
3
4
IC1101
SDA5233
V.GAIN SWITCH
HF FILTER
HF AMP
AS
O LEVEL
DT
PHASE DETECTOR
OSC
CLOCK FILTER
GND
DATA LINE DATA
VIDEO
BLAKE LEVEL
C.SYNC
DATA RESET
Vcc
C1110 15P
C1111 1000P
C1112 470P
C1113 0.022
C1114 270
C1115 100P
X1101 10.000MHz
C1116 15P
L1101 10μH
C1117 82P
C1109 0.068
C1106 0.01
C1107 10/16
C1103 10/16
C1104 0.01
C1119 1000P
A12V
A5V
TP1101
IC1102
SDA5640
Vss
SERIAL CLOCK
SERIAL DATA
GND
R1108 1K
R1111 47K
R1109 1K
R1110 47K
To Y.T.J
1 - 6
(FS TUNING) A12V
(JACK) VIDEO
GND
(FS TUNING) A5V
(Y/CHROMA) CLOCK(TI-V)
DATA(TI-V)
0
3
5.8
3.7
3.3
5.6
3.5
1.3
12
4.2
4.3
4.1
0.5
3.2
4.8
4.7
0.9

※ VOLTAGE : PB OR REC MODE.

HES8050 VPS MODULE IC

DEMODULATOR (For AEP)


※ONE VOLTAGE : PB OR REC MODE,
TWO VOLTAGES : PB AND(REC) MODE.
GND 4A
12V 3A
DEFEAT 2A
SIF 1A
To FS TUNING 1A - 4A
DEFEAT 1E
To Y/CHROMA 1E
R1803 22
C1803 2200/16
C1844 0.022
12V
Lch SEPARATION
STEREO SIGNAL OUTPUT LEVEL
C1824 470P
R1819 3.3K
RT1803 10K
C1828 470P
RT1804 10K
TP1805
TP1806
TP1807
C1829 12P
5.5MHz AUDIO DET.
CP1805
C1827 1/50
C1826 0.068
R1821 1K
R1820 1K
C1825 56P
CF1802 5.5MHz
C1832 33P
L1802 15μ
LIMITER
MATRIX, YCA
LCH
RCH
C1830 1/50
C1831 1/50
C1836 3.3/50
C1835 3.3/50
R1824 2.2K
R1825 2.2K
R1801 2.2K
R1829 150K
R1841 3.9K
C1834 0.047
R1840 3.9K
C1833 0.047
IC1801 LR-3P02
R1802 1K
C1802 56P
CF1801 5.74MHz
C1801 33P
L1801 12μ
R1818 2.2K
C1842 1/50
C1823 0.068
CP1802
5.74MHz AUDIO DET.
C1822 12P
TP1802
C1804 0.01
PHASE DET
VCO
C1816 0.068
R1815 470
C1815 0.068
C1814 0.033
R1814 82K
C1817 22/16
C1818 22/16
C1819 3.3/50
RT1807 47K
TP1810
TP1809
CP1803
SOUND MPX DISCRI.
SOUND M.P.X DISCRI. SENSITIVITY
R1817 150K
IC1803 LA1150N
REGULATOR
IF AMP
FILTER
DETECT
R1826 2.2K
C1805 4.7/16
R1822 27K
5.5MHz Q. SIGNAL DET
CP1801
C1807 12P
R1823 68(1/2W)
C1806 10/16
C1845 0.022
SOUND MPX DISCRI.
C1810 0.1
R1808 15K
TP1801
IC1802 BA4560
R1810 100K
RT1801 220K
R1811 220
C1811 0.1
R1813 22K
C1821 0.068
C1820 47/16
R1834 100K
R1816 39
GND
R1809 27K
C1813 0.1
R1812 220K
RT1802 470K
C1812 0.1
R1830 470
STEREO DISCRI. SIGNAL
Q1801 2SC1740S-R
C1809 0.01
TP1804
CP1804
54.7KHz TRAP
R1805 1K
C1843 0.022
R1804 15K
R1807 8.2K
R1806 4.7K
C1808 470P
R1827 10K
C1841 0.001
R1828 150K
D1802 1SS254-T
Q1802 2SC1740S-R
YTJ (DEMODULATOR SECTION) P.C.B
Q1803 2SC1740S-R
PG1502(4/6)
3 TUNER(L)
4 TUNER(R)
5 GND
6 BILINGUAL
To SSA (AUDIO I/O) PG514 VIA CNW514 PG801(2/10)
R1832 10K
R1833 18K
R1831 220K
8.7(BIL) 0.1(NOR)
Q1805 2SC1740S-R
0.1(BIL) 0.6(NOR)
Q1804 2SC1740S-R
8 STEREO INDI.
9 BILINGUAL INDI.
To TIMER SUB PG2704 VIA CNW801
R1836 10K
R1837 10K
R1838 22K
R1839 10K
Q1806 2SC1740S-R
D1801 1SS254T
QR1801 RTIN241S
1C PB
2C PINP
3C LINE/TUNER
To JACK 1C - 3C
NOTE : RTIN241S
22K
AUDIO SIGNAL
E
D
C
B
A
1
2
3
4
5
6
7

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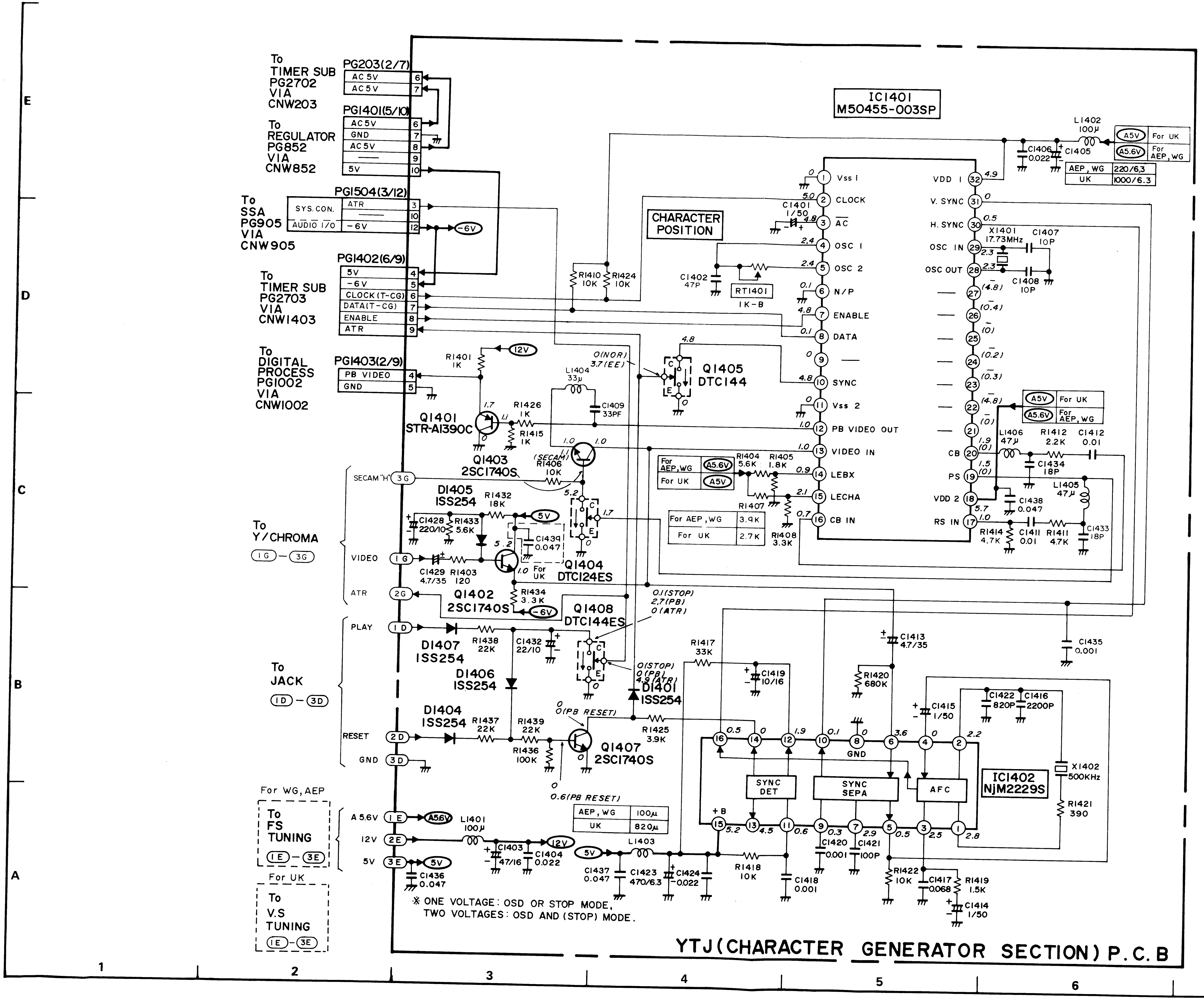
CHARACTER GENERATOR


E
D
C
B
A
1
2
3
4
5
6
7
8
To TIMER SUB PG2702 VIA CNW203
PG203(2/7)
AC 5V
AC 5V
To REGULATOR PG852 VIA CNW852
PG1401(5/10)
AC 5V
GND
AC 5V
5V
To SSA PG905 VIA CNW905
PG1504(3/12)
SYS. CON.
AUDIO I/O
ATR
-6V
To TIMER SUB PG2703 VIA CNW1403
PG1402(6/9)
5V
-6V
CLOCK (T-CG)
DATA (T-CG)
ENABLE
ATR
To DIGITAL PROCESS PG1002 VIA CNW1002
PG1403(2/9)
PB VIDEO
GND
To Y/CHROMA
1G - 3G
SECAM "H"
VIDEO
ATR
To JACK
1D - 3D
PLAY
RESET
GND
For WG, AEP
To FS TUNING
1E - 3E
For UK
To V.S TUNING
1E - 3E
A 5.6V
12V
5V
IC1401
M50455-003SP
CHARACTER POSITION
Vss 1
CLOCK
AC
OSC I
OSC 2
N/P
ENABLE
DATA
SYNC
Vss 2
PB VIDEO OUT
VIDEO IN
LEBX
LECHA
CB IN
VDD 1
V. SYNC
H. SYNC
OSC IN
OSC OUT
CB
PS
VDD 2
RS IN
X1401 17.73MHz
L1402 100µ
For UK
For AEP, WG
AEP, WG 220/6.3
UK 1000/6.3
RT1401 1K-B
Q1401 STR-A1390C
Q1402 2SC1740S
Q1403 2SC1740S
Q1404 DTC124ES
Q1405 DTC144
Q1407 2SC1740S
Q1408 DTC144ES
D1401 ISS254
D1404 ISS254
D1405 ISS254
D1406 ISS254
D1407 ISS254
For AEP, WG 3.9K
For UK 2.7K
0(NOR) 3.7(EE)
0.1(STOP) 2.7(PB) 0(ATR)
0(STOP) 0(PB) 4.9(ATR)
0(PB RESET)
0.6(PB RESET)
AEP, WG 100µ
UK 820µ
IC1402 NJM2229S
SYNC DET
SYNC SEPA
AFC
GND
+B
X1402 500KHz
※ ONE VOLTAGE: OSD OR STOP MODE, TWO VOLTAGES: OSD AND (STOP) MODE.
YTJ (CHARACTER GENERATOR SECTION) P.C.B

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TIMER (WG,AEP)	5-22
FRONT SW (WG,AEP)	5-26
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DEMODULATOR (AEP)	5-39
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AUDIO I/O	5-56
FM AUDIO	5-59
MOTOR DRIVE	5-61
CAPSTAN MOTOR	5-62
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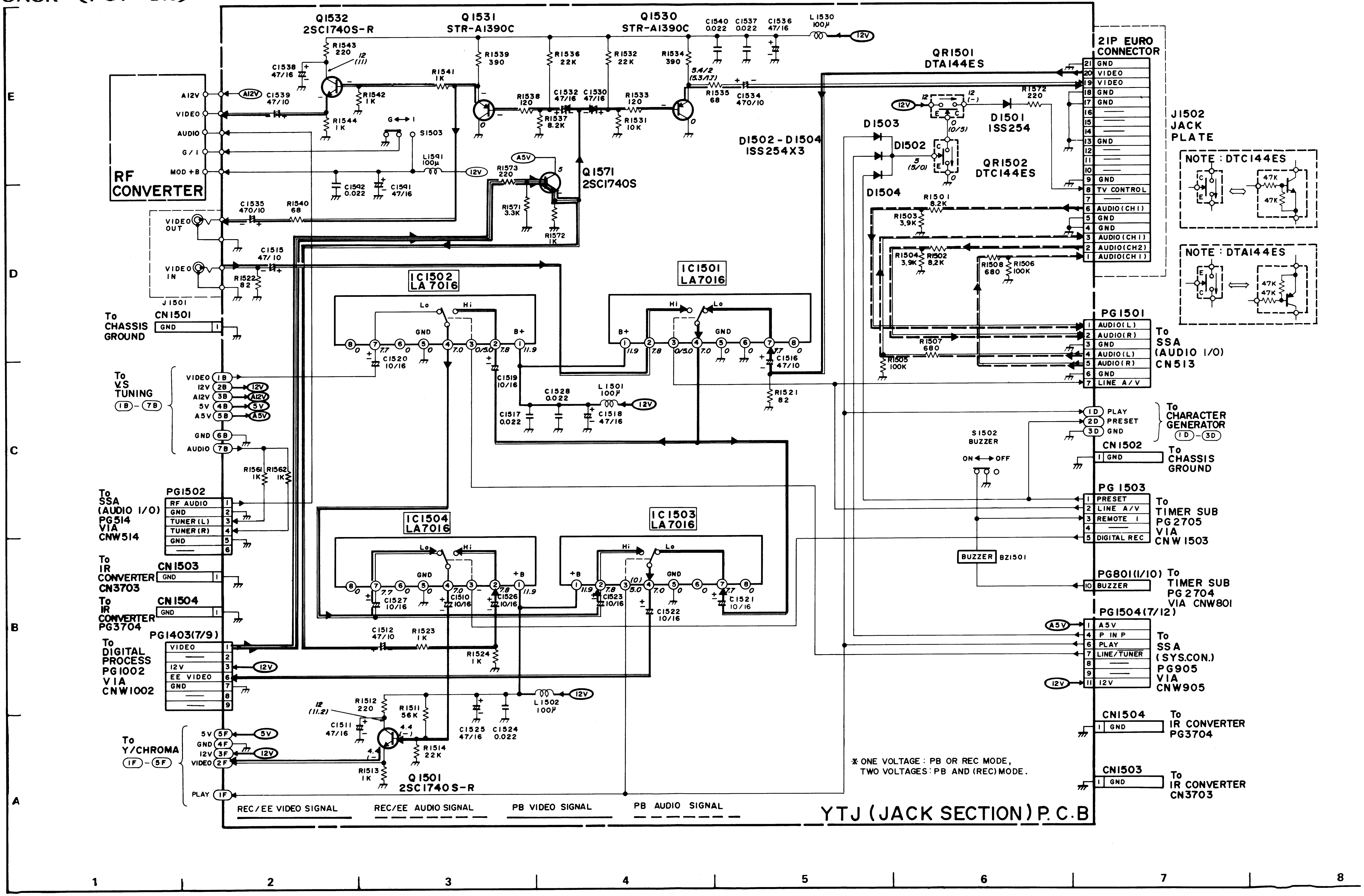
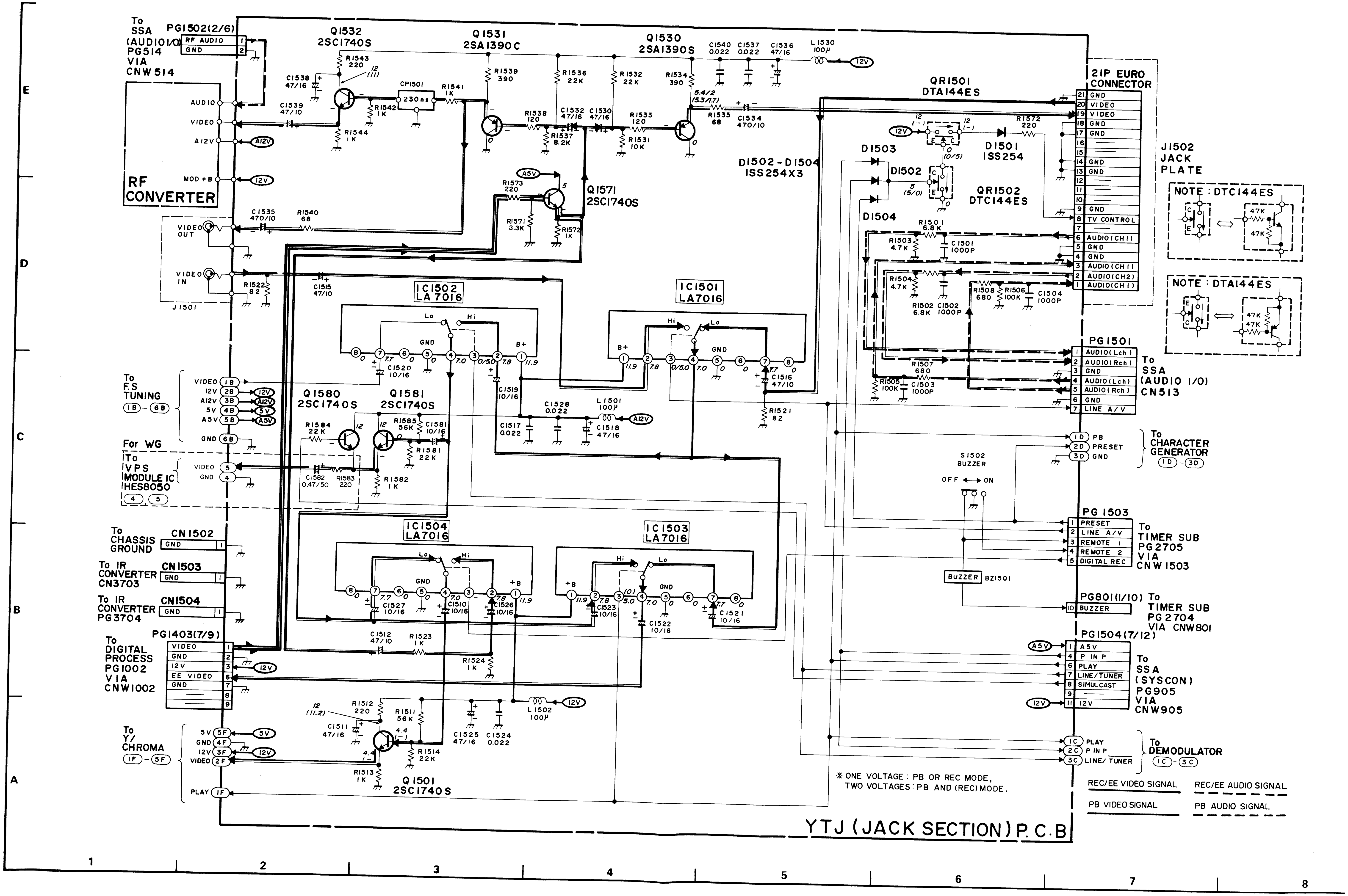
JACK (For UK)


Q1532
2SC1740S-R
Q1531
STR-A1390C
Q1530
STR-A1390C
Q1571
2SC1740S
Q1501
2SC1740S-R
QR1501
DTA144ES
QR1502
DTC144ES
D1501
1SS254
D1502-D1504
1SS254X3
D1503
D1502
D1504
IC1501
LA7016
IC1502
LA7016
IC1503
LA7016
IC1504
LA7016
RF CONVERTER
A12V
VIDEO
AUDIO
G/I
MOD +B
VIDEO OUT
VIDEO IN
J1501
To CHASSIS GROUND
CN1501
GND
To V.S TUNING (1B)-(7B)
VIDEO 1B
12V 2B
A12V 3B
5V 4B
A5V 5B
GND 6B
AUDIO 7B
To SSA (AUDIO I/O) PG514 VIA CNW514
PG1502
RF AUDIO
GND
TUNER(L)
TUNER(R)
GND
To IR CONVERTER CN3703
CN1503
To IR CONVERTER PG3704
CN1504
To DIGITAL PROCESS PG1002 VIA CNW1002
PG1403(7/9)
VIDEO
12V
EE VIDEO
GND
To Y/CHROMA (1F)-(5F)
5V 5F
GND 4F
12V 3F
VIDEO 2F
PLAY 1F
21P EURO CONNECTOR
GND
VIDEO
VIDEO
GND
GND
GND
GND
TV CONTROL
AUDIO(CH1)
GND
GND
AUDIO(CH1)
AUDIO(CH2)
AUDIO(CH1)
J1502 JACK PLATE
NOTE : DTC144ES
NOTE : DTA144ES
47K
PG1501
AUDIO(L)
AUDIO(R)
GND
AUDIO(L)
AUDIO(R)
GND
LINE A/V
To SSA (AUDIO I/O) CN513
1D PLAY
2D PRESET
3D GND
To CHARACTER GENERATOR (1D)-(3D)
CN1502
To CHASSIS GROUND
S1502 BUZZER
ON ↔ OFF
BUZZER BZ1501
PG1503
PRESET
LINE A/V
REMOTE I
DIGITAL REC
To TIMER SUB PG2705 VIA CNW1503
PG801(1/10)
BUZZER
To TIMER SUB PG2704 VIA CNW801
PG1504(7/12)
A5V
P IN P
PLAY
LINE/TUNER
12V
To SSA (SYS.CON.) PG905 VIA CNW905
CN1504
To IR CONVERTER PG3704
CN1503
To IR CONVERTER CN3703
※ ONE VOLTAGE : PB OR REC MODE,
TWO VOLTAGES : PB AND (REC) MODE.
REC/EE VIDEO SIGNAL
REC/EE AUDIO SIGNAL
PB VIDEO SIGNAL
PB AUDIO SIGNAL
YTJ (JACK SECTION) P.C.B
R1543 220
R1544 1K
R1542 1K
R1541 1K
R1539 390
R1536 22K
R1532 22K
R1534 390
R1538 120
R1537 8.2K
R1533 120
R1531 10K
R1535 68
R1573 220
R1571 3.3K
R1572 1K
R1540 68
R1522 82
R1572 220
R1501 8.2K
R1503 3.9K
R1504 3.9K
R1502 8.2K
R1508 680
R1506 100K
R1507 680
R1505 100K
R1521 82
R1561 1K
R1562 1K
R1523 1K
R1524 1K
R1512 220
R1511 56K
R1514 22K
R1513 1K
C1538 47/16
C1539 47/10
C1540 0.022
C1537 0.022
C1536 47/16
C1532 47/16
C1530 47/16
C1534 470/10
C1542 0.022
C1541 47/16
C1535 470/10
C1515 47/10
C1520 10/16
C1519 10/16
C1528 0.022
C1517 0.022
C1518 47/16
C1516 47/10
C1527 10/16
C1510 10/16
C1526 10/16
C1523 10/16
C1522 10/16
C1521 10/16
C1512 47/10
C1511 47/16
C1525 47/16
C1524 0.022
L1530 100μ
L1591 100μ
L1501 100μ
L1502 100μ
S1503
G ↔ I
Lo
Hi
GND
B+
+B
12V
A12V
A5V
5V
E
D
C
B
A
1
2
3
4
5
6
7
8

JACK (For WG, AEP)


To SSA (AUDIO I/O) PG514 VIA CNW514
PG1502(2/6)
RF AUDIO
GND
RF CONVERTER
AUDIO
VIDEO
A12V
MOD +B
Q1532 2SC1740S
R1543 220
C1538 47/16
C1539 47/10
CP1501 230ns
R1541 1K
R1542 1K
R1544 1K
Q1531 2SA1390C
R1539 390
R1538 120
R1537 8.2K
R1536 22K
C1532 47/16
C1530 47/16
R1532 22K
R1533 120
R1531 10K
Q1530 2SA1390S
R1534 390
5.4/2 (5.3/1.7)
R1535 68
C1534 470/10
C1540 0.022
C1537 0.022
C1536 47/16
L1530 100µ
12V
A5V
R1573 220
R1571 3.3K
R1572 1K
Q1571 2SC1740S
C1535 470/10
R1540 68
VIDEO OUT
VIDEO IN
R1522 82
C1515 47/10
J1501
QR1501 DTA144ES
R1572 220
D1501 1SS254
D1503
D1502
D1504
D1502-D1504 1SS254X3
QR1502 DTC144ES
R1501 6.8K
R1503 4.7K
C1501 1000P
R1504 4.7K
R1508 680
R1506 100K
C1504 1000P
R1502 6.8K
C1502 1000P
R1507 680
R1505 100K
C1503 1000P
21P EURO CONNECTOR
21 GND
20 VIDEO
19 VIDEO
18 GND
17 GND
14 GND
13 GND
9 GND
8 TV CONTROL
6 AUDIO (CH1)
5 GND
4 GND
3 AUDIO (CH1)
2 AUDIO (CH2)
1 AUDIO (CH1)
J1502 JACK PLATE
NOTE : DTC144ES
NOTE : DTA144ES
47K
IC1502 LA7016
IC1501 LA7016
Lo
Hi
GND
B+
C1520 10/16
C1519 10/16
C1528 0.022
L1501 100µ
A12V
C1517 0.022
C1518 47/16
C1516 47/10
R1521 82
PG1501
1 AUDIO (Lch)
2 AUDIO (Rch)
3 GND
4 AUDIO (Lch)
5 AUDIO (Rch)
6 GND
7 LINE A/V
To SSA (AUDIO I/O) CN513
1D PB
2D PRESET
3D GND
To CHARACTER GENERATOR 1D-3D
To F.S TUNING 1B-6B
VIDEO 1B
12V 2B
A12V 3B
5V 4B
A5V 5B
GND 6B
Q1580 2SC1740S
Q1581 2SC1740S
R1584 22K
R1585 56K
C1581 10/16
R1581 22K
R1582 1K
C1582 0.47/50
R1583 220
For WG
To VPS MODULE IC HES8050 4, 5
VIDEO 5
GND 4
S1502 BUZZER
OFF ↔ ON
BUZZER BZ1501
PG1503
1 PRESET
2 LINE A/V
3 REMOTE 1
4 REMOTE 2
5 DIGITAL REC
To TIMER SUB PG2705 VIA CNW1503
PG801(1/10)
10 BUZZER
To TIMER SUB PG2704 VIA CNW801
IC1504 LA7016
IC1503 LA7016
C1527 10/16
C1510 10/16
C1526 10/16
C1523 10/16
C1522 10/16
C1521 10/16
To CHASSIS GROUND CN1502 GND
To IR CONVERTER CN3703 CN1503 GND
To IR CONVERTER PG3704 CN1504 GND
To DIGITAL PROCESS PG1002 VIA CNW1002
PG1403(7/9)
1 VIDEO
2 GND
3 12V
6 EE VIDEO
7 GND
C1512 47/10
R1523 1K
R1524 1K
PG1504(7/12)
1 A5V
4 P IN P
6 PLAY
7 LINE/TUNER
8 SIMULCAST
11 12V
To SSA (SYSCON) PG905 VIA CNW905
R1512 220
R1511 56K
C1511 47/16
R1514 22K
R1513 1K
Q1501 2SC1740S
C1525 47/16
C1524 0.022
L1502 100µ
To Y/CHROMA 1F-5F
5V 5F
GND 4F
12V 3F
VIDEO 2F
PLAY 1F
1C PLAY
2C P IN P
3C LINE/TUNER
To DEMODULATOR 1C-3C
※ ONE VOLTAGE : PB OR REC MODE,
TWO VOLTAGES : PB AND (REC) MODE.
REC/EE VIDEO SIGNAL
REC/EE AUDIO SIGNAL
PB VIDEO SIGNAL
PB AUDIO SIGNAL
YTJ (JACK SECTION) P.C.B
A
B
C
D
E
1
2
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6
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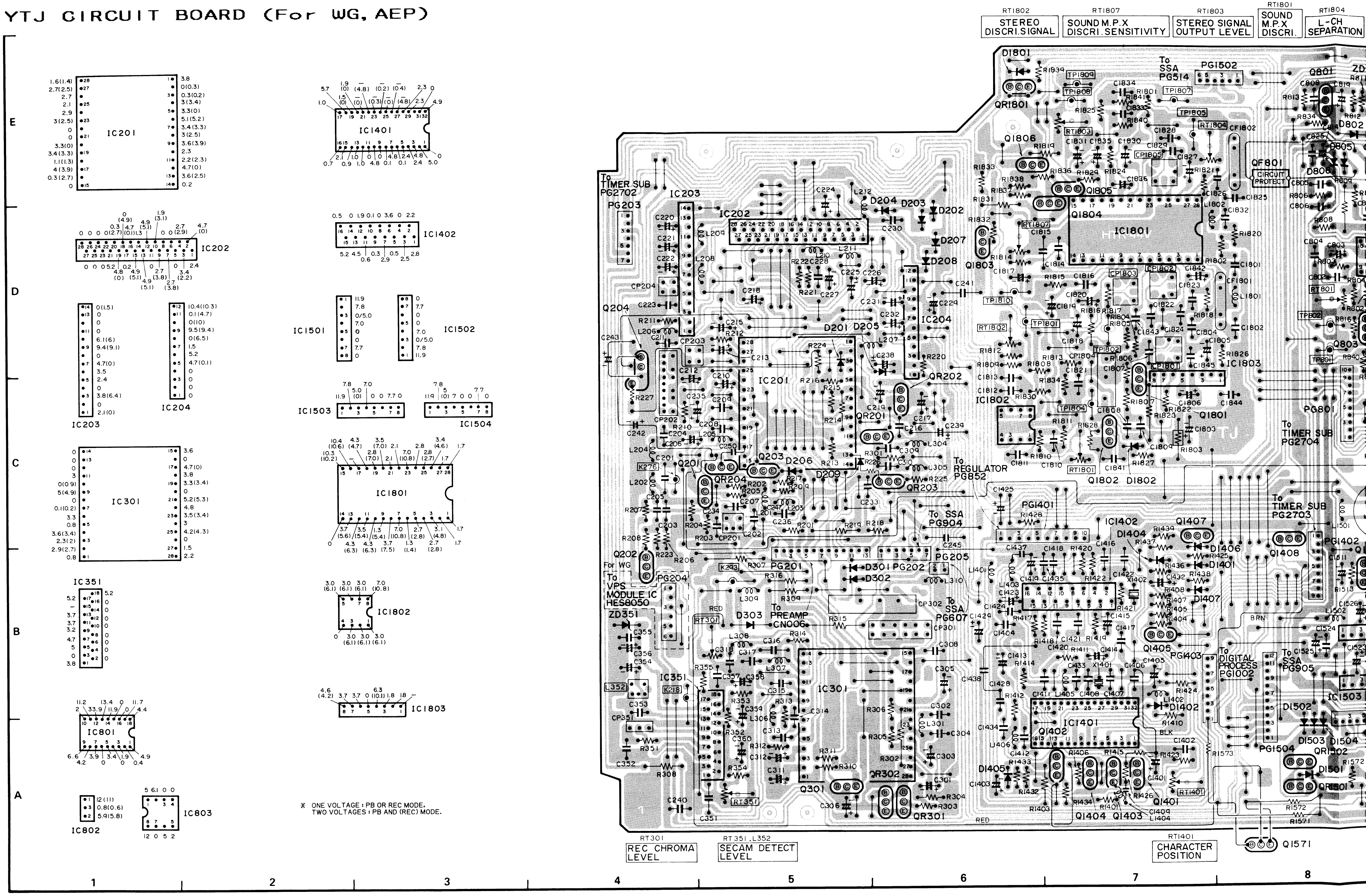
8

YTJ CIRCUIT BOARD (For WG, AEP)



IC201
IC1401
IC202
IC1402
IC203
IC204
IC1501
IC1502
IC1503
IC1504
IC301
IC1801
IC351
IC1802
IC801
IC1803
IC802
IC803
RT1802 STEREO DISCRI.SIGNAL
RT1807 SOUND M.P.X DISCRI.SENSITIVITY
RT1803 STEREO SIGNAL OUTPUT LEVEL
RT1801 SOUND M.P.X DISCRI.
RT1804 L-CH SEPARATION
To TIMER SUB PG2702
To SSA PG514
To REGULATOR PG852
To SSA PG904
To TIMER SUB PG2704
To TIMER SUB PG2703
For WG To VPS MODULE IC HES8050
To PREAMP CN006
To SSA PG6607
To DIGITAL PROCESS PG1002
To SSA PG905
CIRCUIT PROTECT
RT301 REC CHROMA LEVEL
RT351, L352 SECAM DETECT LEVEL
RT1401 CHARACTER POSITION
A
B
C
D
E
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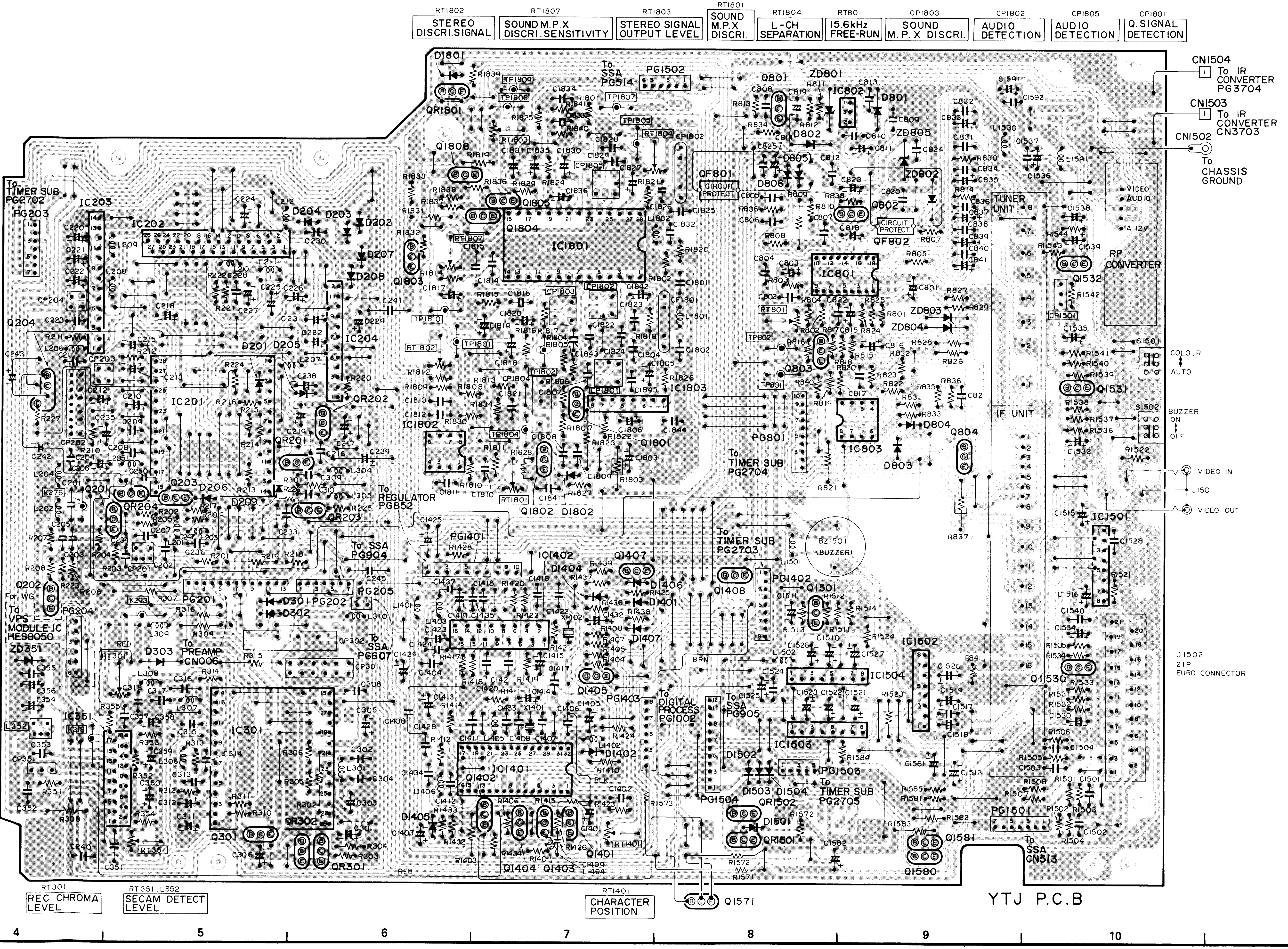
※ ONE VOLTAGE : PB OR REC MODE.
TWO VOLTAGES : PB AND (REC) MODE.


RT1802 STEREO DISCRI.SIGNAL
RT1807 SOUND M.P.X DISCRI.SENSITIVITY
RT1803 STEREO SIGNAL OUTPUT LEVEL
RT1801 SOUND M.P.X DISCRI.
RT1804 L-CH SEPARATION
RT801 15.6kHz FREE-RUN
CP1803 SOUND M.P.X DISCRI.
CP1802 AUDIO DETECTION
CP1805 AUDIO DETECTION
CP1801 Q.SIGNAL DETECTION
CN1504 To IR CONVERTER PG3704
CN1503 To IR CONVERTER CN3703
CN1502 To CHASSIS GROUND
To TIMER SUB PG2702
PG203
To SSA PG514
PG1502
QF801 CIRCUIT PROTECT
QF802 CIRCUIT PROTECT
TUNER UNIT
IF UNIT
RF CONVERTER
VIDEO
AUDIO
A 12V
S1501 COLOUR AUTO
S1502 BUZZER ON OFF
VIDEO IN
J1501
VIDEO OUT
J1502 21P EURO CONNECTOR
To TIMER SUB PG2704
PG801
To REGULATOR PG852
To TIMER SUB PG2703
BZ1501 (BUZZER)
To SSA PG904
PG1401
PG205
PG201
PG202
For WG To VPS MODULE IC HE56050
PG204
To PREAMP CN006
To SSA PG607
CP302
CP301
To DIGITAL PROCESS PG1002
To SSA PG905
PG1403
PG1503
PG1504
To TIMER SUB PG2705
PG1501
To SSA CN513
IC203
IC202
IC201
IC204
IC301
IC351
IC1801
IC1802
IC1803
IC801
IC803
IC802
IC1401
IC1402
IC1501
IC1502
IC1503
IC1504
RT301 REC CHROMA LEVEL
RT351, L352 SECAM DETECT LEVEL
RT1401 CHARACTER POSITION
Q1571
YTJ P.C.B
RED
BRN
BLK
4
5
6
7
8
9
10
11

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AUDIO I/O	5-56
FM AUDIO	5-59
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CAPSTAN MOTOR	5-62
SERVO	5-63
SYSTEM CONTROL	5-66
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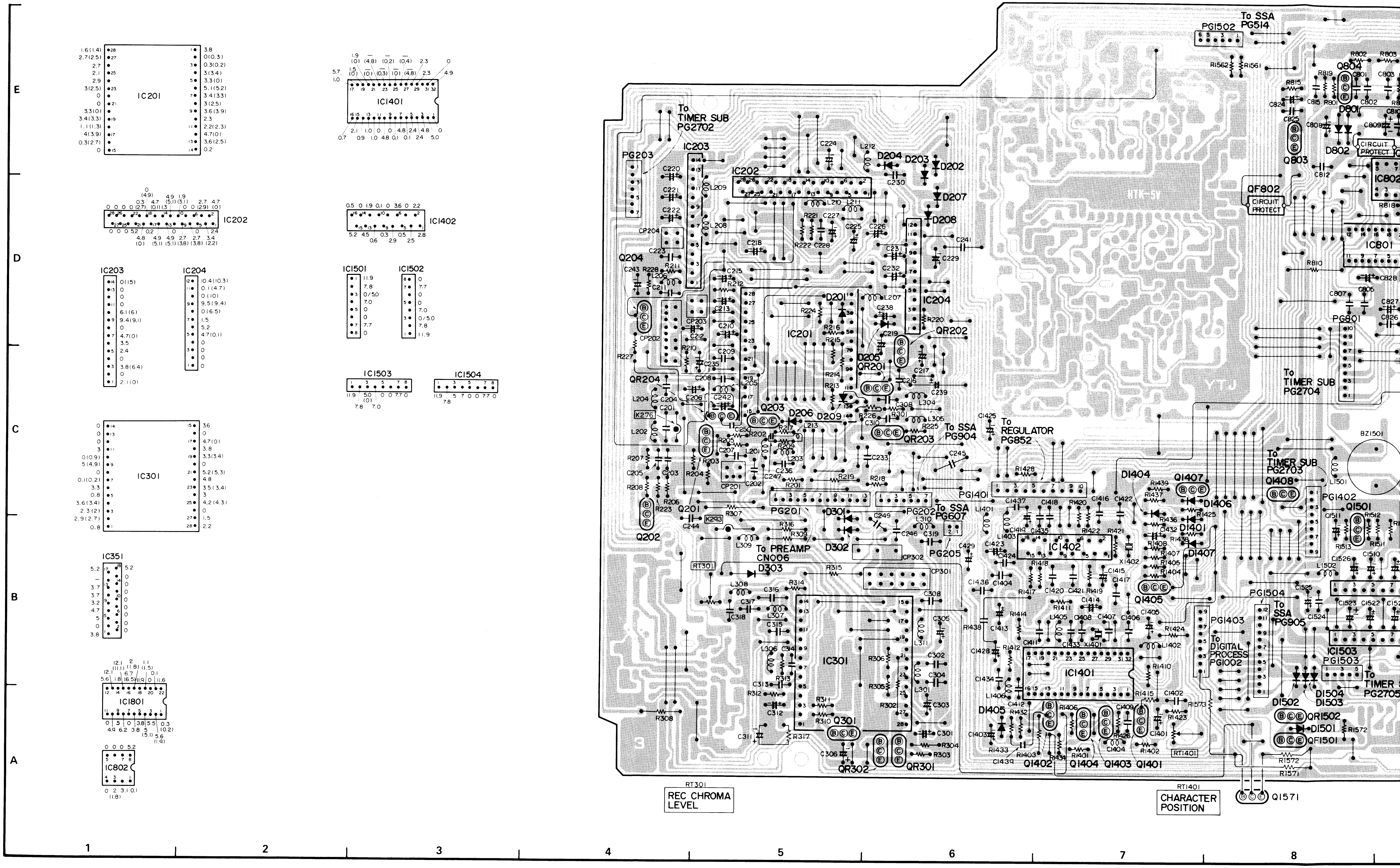
CONTROL	5-78
REGULATOR	5-84
RF CONVERTER	5-86

YTJ CIRCUIT BOARD (For UK)



E
D
C
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A
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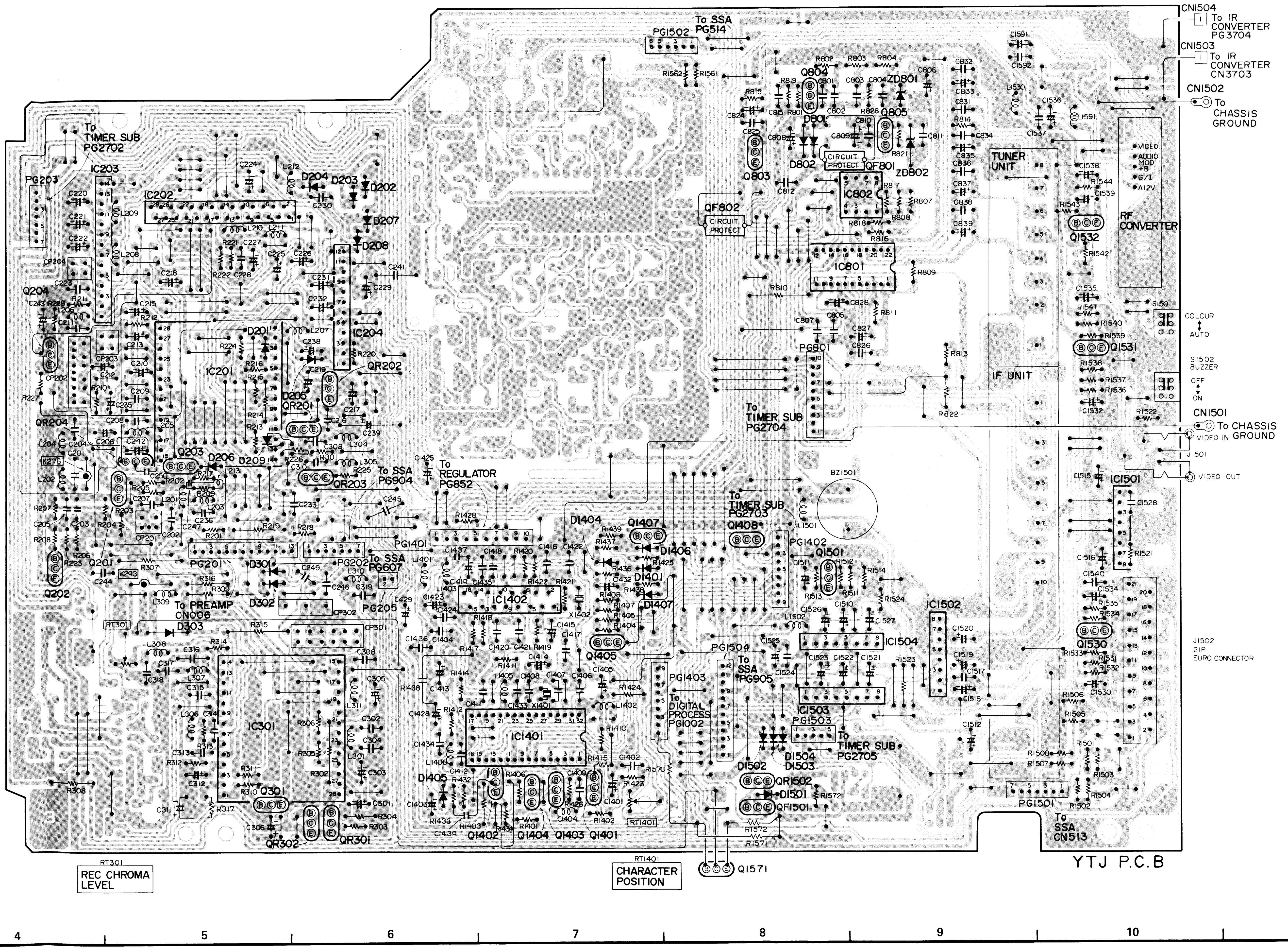
7
8
IC201
IC202
IC203
IC204
IC301
IC351
IC1401
IC1402
IC1501
IC1502
IC1503
IC1504
IC1801
IC802
To TIMER SUB PG2702
PG203
To SSA PG514
PG1502
CIRCUIT PROTECT
QF802
Q804
Q803
D801
D802
To TIMER SUB PG2704
PG801
IC801
To REGULATOR PG852
To SSA PG904
To SSA PG607
To PREAMP CN006
PG201
PG202
PG205
PG1401
To TIMER SUB PG2703
PG1402
PG1403
To DIGITAL PROCESS PG1002
PG1504
To SSA PG905
PG1503
To TIMER PG2705
BZ1501
Q201
Q202
Q203
Q204
QR201
QR202
QR203
QR204
Q301
QR301
QR302
Q1401
Q1402
Q1403
Q1404
Q1405
Q1407
Q1408
Q1501
QR1502
QF1501
Q1571
D201
D202
D203
D204
D205
D206
D207
D208
D209
D301
D302
D303
D1401
D1404
D1405
D1406
D1407
D1501
D1502
D1503
D1504
RT301
REC CHROMA LEVEL
RT1401
CHARACTER POSITION


To TIMER SUB PG2702
PG203
IC203
IC202
IC201
IC204
D204
D203
D202
D207
D208
D201
D205
QR201
QR202
QR203
QR204
Q204
Q203
Q202
Q201
D206
D209
D301
D302
D303
To SSA PG904
To SSA PG607
PG202
PG205
PG201
To PREAMP CN006
CP201
CP202
CP203
CP204
CP301
CP302
K275
K293
RT301
IC301
Q301
QR301
QR302
To REGULATOR PG852
PG1401
IC1402
IC1401
D1404
D1401
D1405
D1406
D1407
Q1401
Q1402
Q1403
Q1404
Q1405
Q1407
Q1408
X1401
X1402
RT1401
PG1403
To DIGITAL PROCESS PG1002
PG1504
To SSA PG905
To TIMER SUB PG2703
PG1402
Q1501
IC1502
IC1503
IC1504
PG1503
To TIMER SUB PG2705
D1501
D1502
D1503
D1504
QR1502
QF1501
Q1571
BZ1501
L1501
To SSA PG514
PG1502
To TIMER SUB PG2704
PG801
IC801
IC802
Q803
Q804
Q805
D801
D802
ZD801
ZD802
QF801
QF802
CIRCUIT PROTECT
HTK-5V
YTJ
TUNER UNIT
IF UNIT
RF CONVERTER
VIDEO
AUDIO
MOD +B
G/I
A12V
Q1530
Q1531
Q1532
IC1501
PG1501
To SSA CN513
CN1504 To IR CONVERTER PG3704
CN1503 To IR CONVERTER CN3703
CN1502 To CHASSIS GROUND
CN1501 To CHASSIS GROUND
J1501
VIDEO IN
VIDEO OUT
S1501
COLOUR
AUTO
S1502 BUZZER
OFF
ON
J1502 21P EURO CONNECTOR
YTJ P.C.B
4
5
6
7
8
9
10
11

RT301
REC CHROMA LEVEL

RT1401
CHARACTER POSITION

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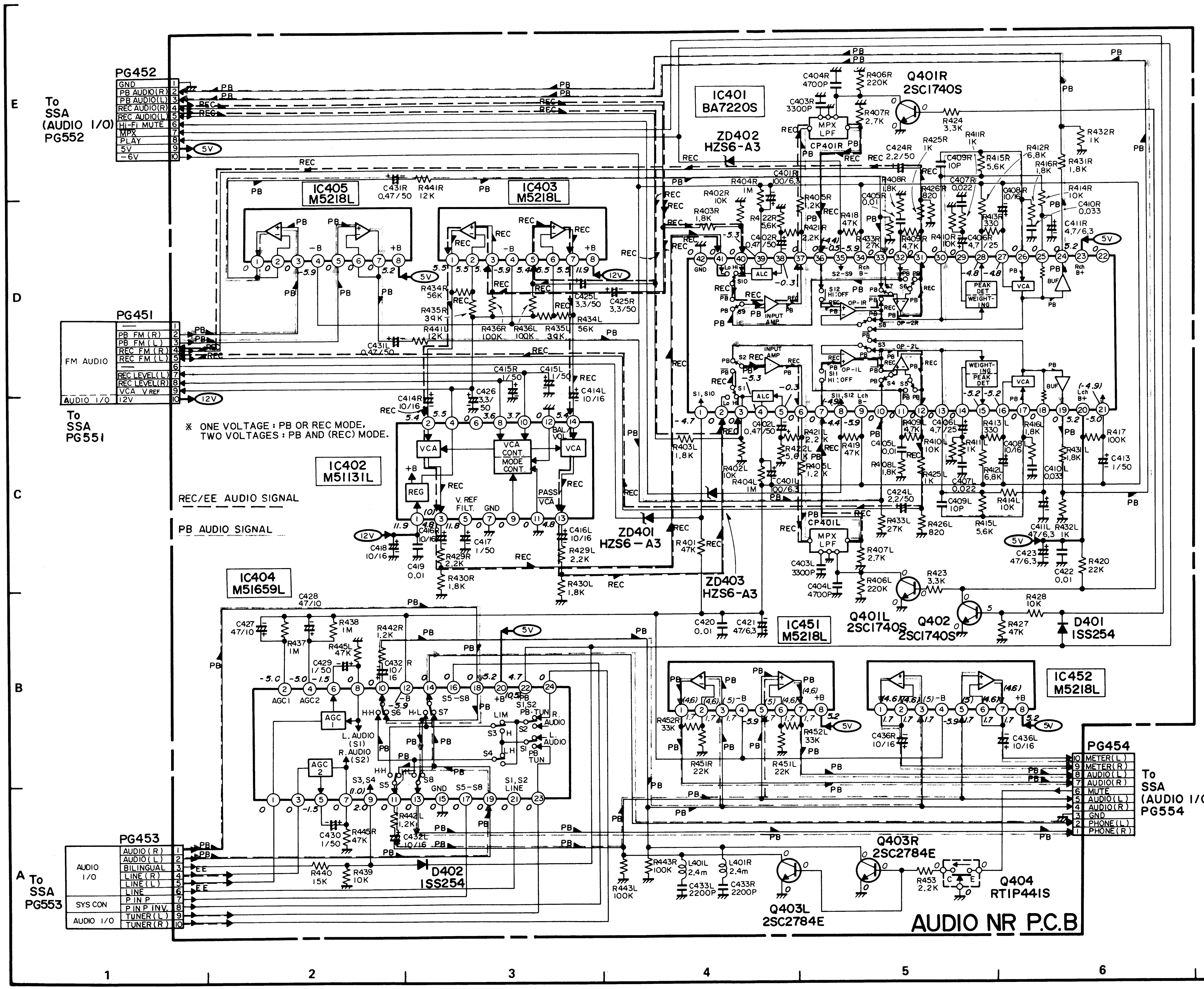
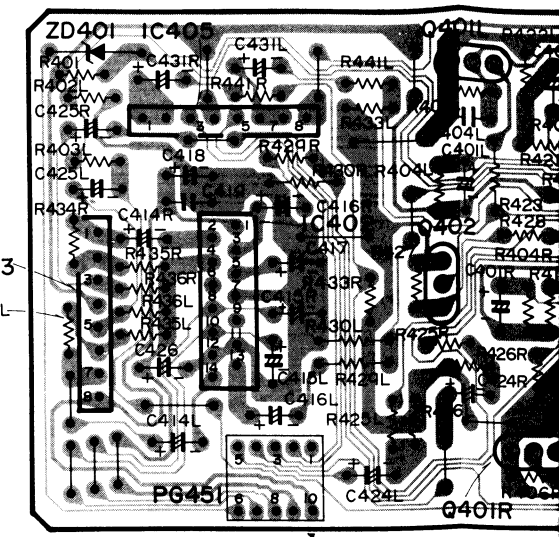
AUDIO-NR

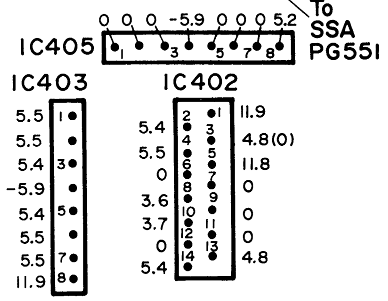


PG452
GND
PB AUDIO(R)
PB AUDIO(L)
REC AUDIO(R)
REC AUDIO(L)
Hi-Fi MUTE
MPX
PLAY
5V
-6V
To SSA (AUDIO I/O) PG552
PG451
FM AUDIO
PB FM (R)
PB FM (L)
REC FM (R)
REC FM (L)
REC LEVEL(L)
REC LEVEL(R)
VCA V REF
AUDIO I/O
12V
To SSA PG551
IC405 M5218L
IC403 M5218L
IC401 BA7220S
IC402 M51131L
IC404 M51659L
IC451 M5218L
IC452 M5218L
ZD401 HZS6-A3
ZD402 HZS6-A3
ZD403 HZS6-A3
Q401R 2SC1740S
Q401L 2SC1740S
Q402 2SC1740S
Q403R 2SC2784E
Q403L 2SC2784E
Q404 RT1P441S
D401 1SS254
D402 1SS254
CP401R MPX LPF
CP401L MPX LPF
VCA
VCA CONT. MODE CONT.
REG
PASS VCA
BAL VOL
V. REF FILT.
GND
ALC
INPUT AMP
PEAK DET WEIGHT-ING
WEIGHT-ING PEAK DET
BUF
AGC 1
AGC 2
L. AUDIO (S1)
R. AUDIO (S2)
LIM
PB TUN
R. AUDIO
L. AUDIO
REC/EE AUDIO SIGNAL
PB AUDIO SIGNAL
PG454
METER(L)
METER(R)
AUDIO(L)
AUDIO(R)
MUTE
AUDIO(L)
AUDIO(R)
GND
PHONE(L)
PHONE(R)
To SSA (AUDIO I/O) PG554
PG453
AUDIO I/O
AUDIO (R)
AUDIO (L)
BILINGUAL
LINE (R)
LINE (L)
LINE
SYS CON
P IN P
P IN P INV.
AUDIO I/O
TUNER (L)
TUNER (R)
To SSA PG553
AUDIO NR P.C.B
E
D
C
B
A
1
2
3
4
5
6
7
8

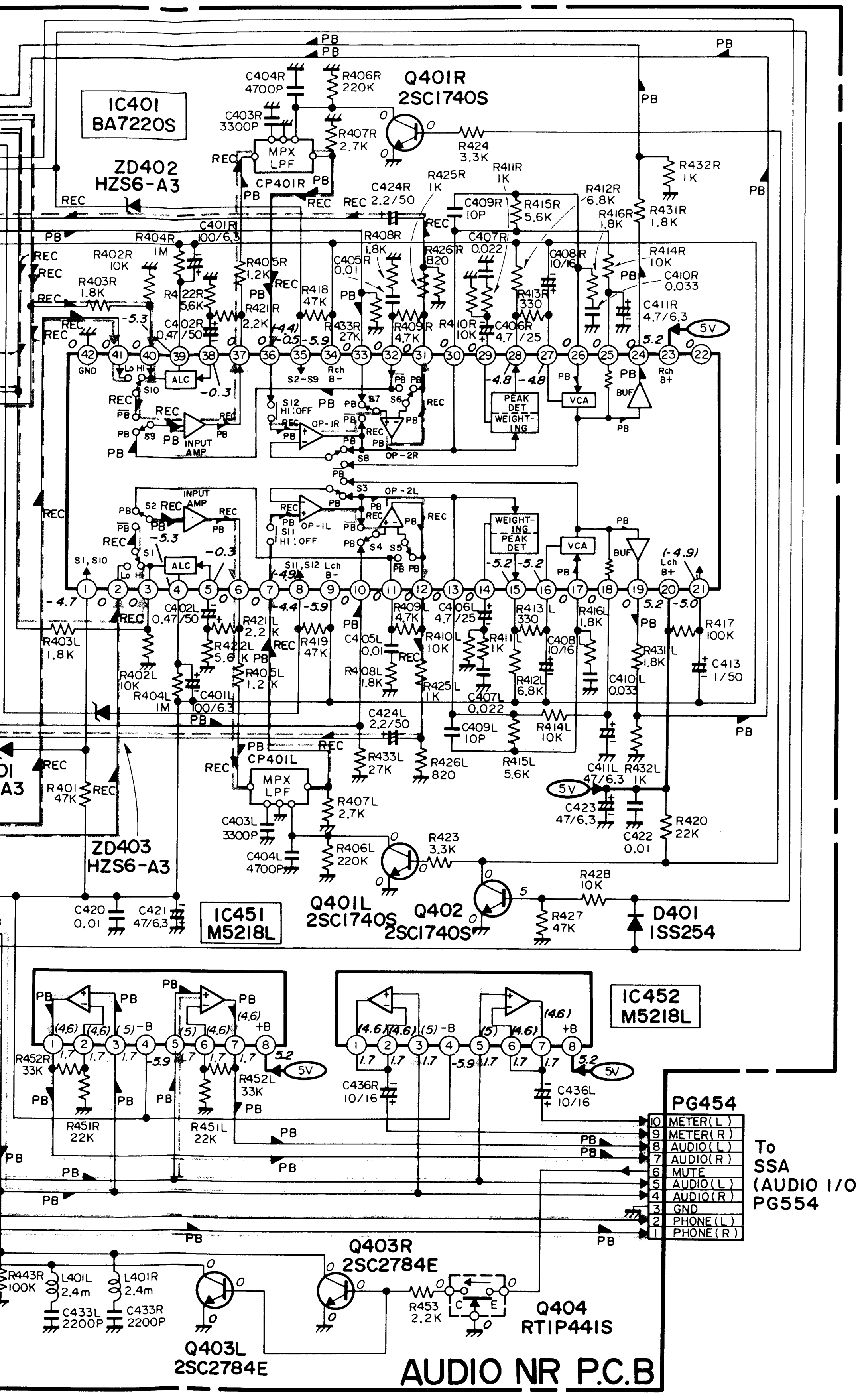
※ ONE VOLTAGE : PB OR REC MODE.
TWO VOLTAGES : PB AND (REC) MODE.

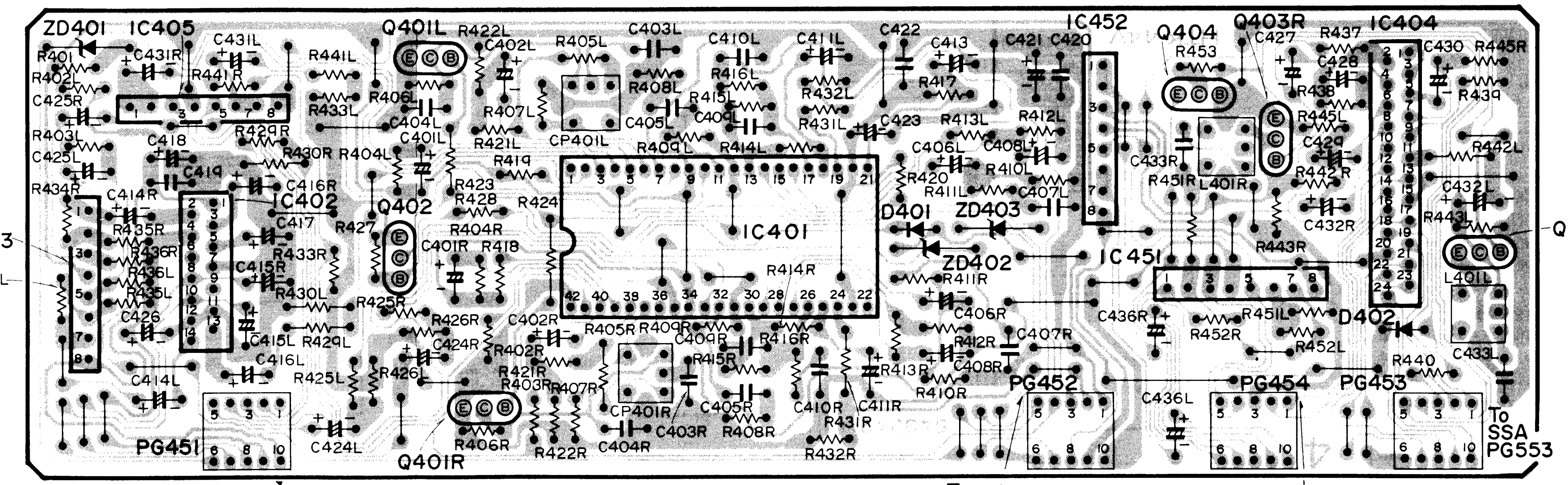


ZD401
IC405
IC403
R434L
PG451
Q401R
Q402
C424L

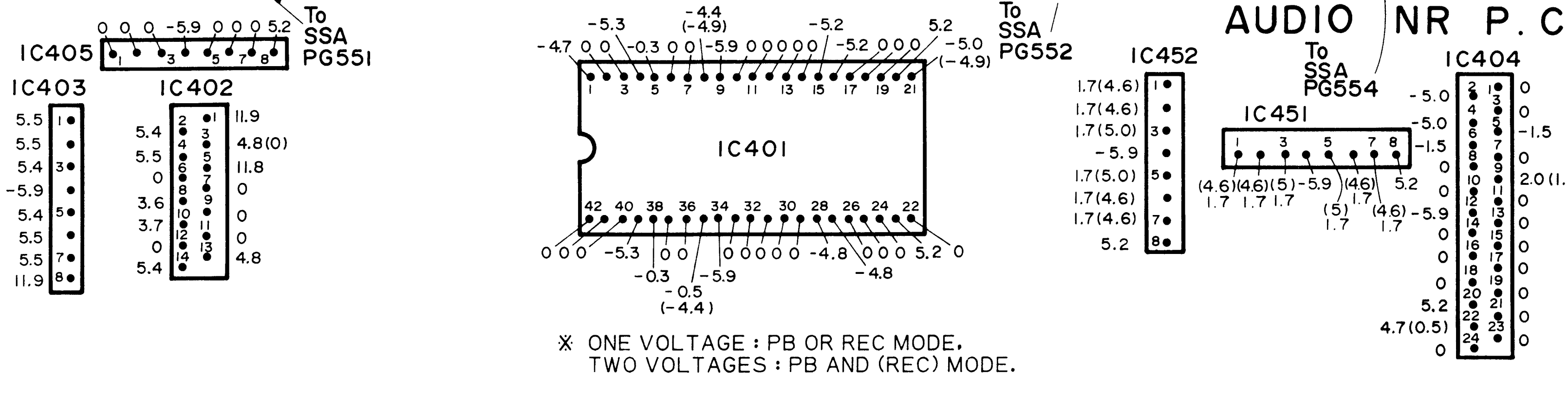


To SSA PG551
IC405
0 0 0 -5.9 0 0 0 5.2
IC403
5.5
5.5
5.4
-5.9
5.4
5.5
5.5
11.9
IC402
5.4
5.5
0
3.6
3.7
0
5.4
11.9
4.8(0)
11.8
0
0
0
4.8


IC401 BA7220S
ZD402 HZS6-A3
ZD403 HZS6-A3
Q401R 2SC1740S
Q401L 2SC1740S
Q402 2SC1740S
D401 1SS254
IC451 M5218L
IC452 M5218L
Q403R 2SC2784E
Q403L 2SC2784E
Q404 RT1P441S
PG454
10 METER(L)
9 METER(R)
8 AUDIO(L)
7 AUDIO(R)
6 MUTE
5 AUDIO(L)
4 AUDIO(R)
3 GND
2 PHONE(L)
1 PHONE(R)
To SSA (AUDIO I/O) PG554
AUDIO NR P.C.B


IC403
Q401L
Q401R
Q402
Q403R
Q403L
Q404
IC401
IC402
IC404
IC405
IC451
IC452
PG451
PG452
PG453
PG454
To SSA PG553

AUDIO NR P.C.B


IC405
To SSA PG551
To SSA PG552
To SSA PG554
IC403
IC402
IC401
IC452
IC451
IC404

※ ONE VOLTAGE : PB OR REC MODE.
TWO VOLTAGES : PB AND (REC) MODE.

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AUDIO I/O

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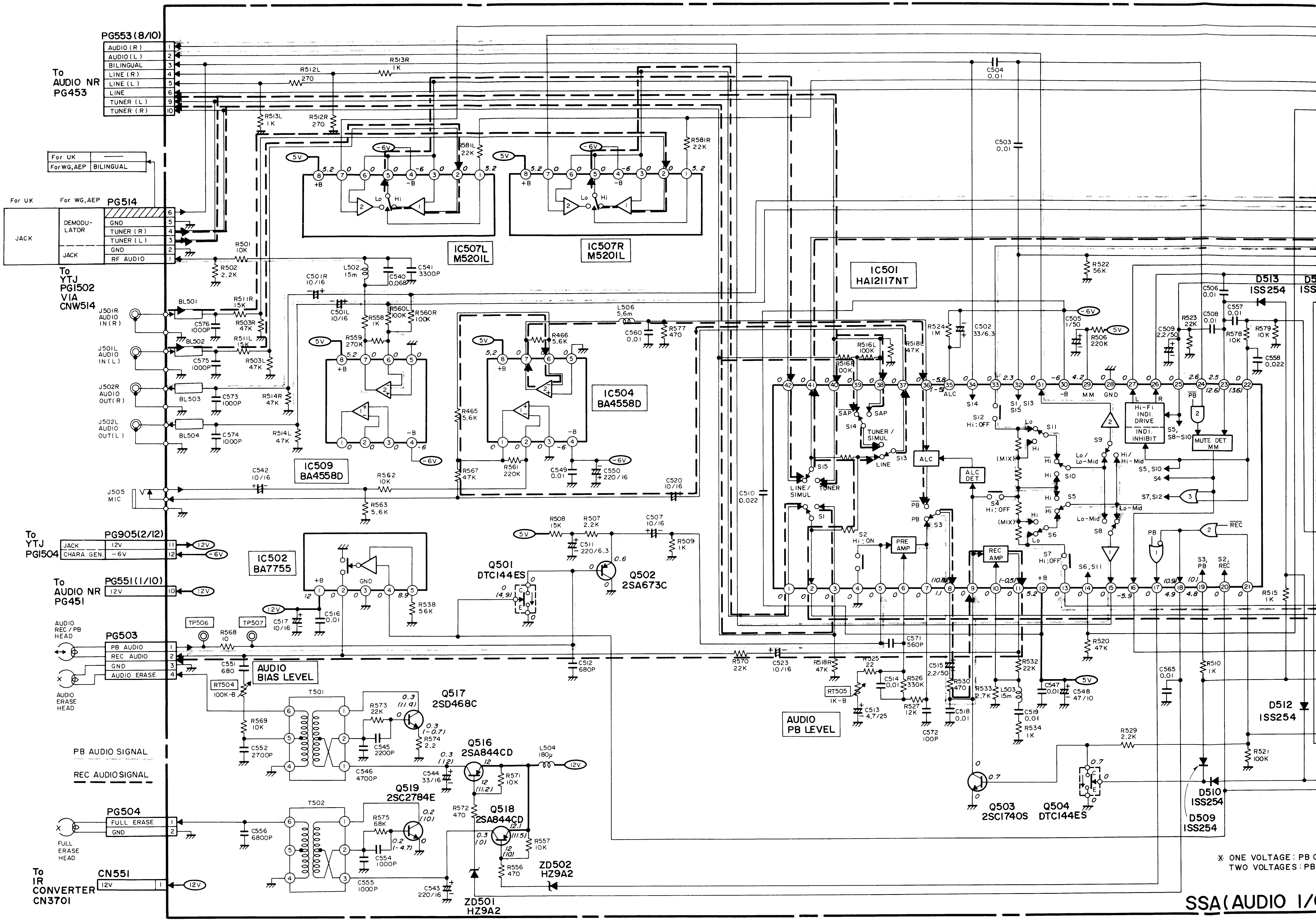
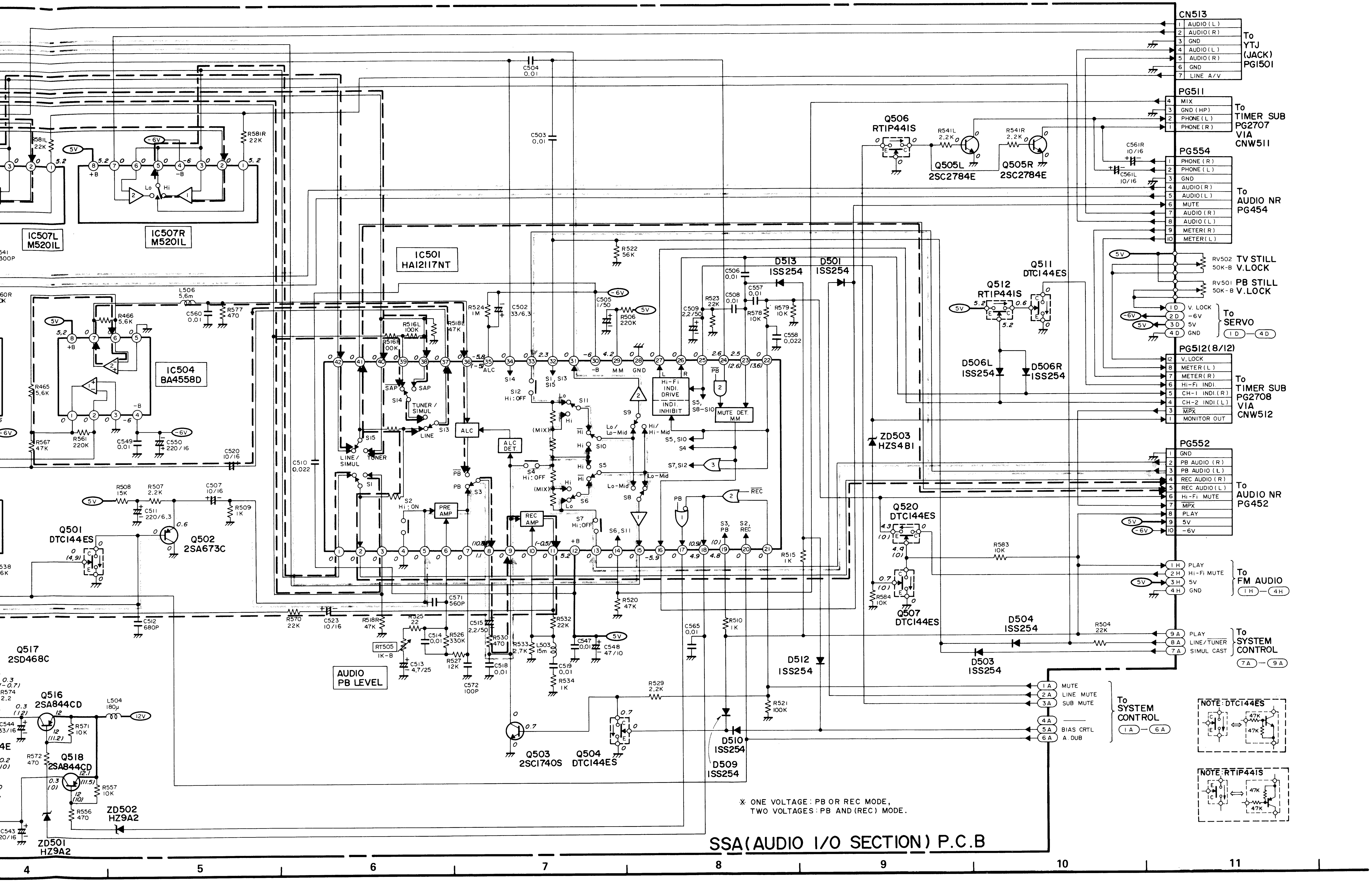
RF CONVERTER	5-86



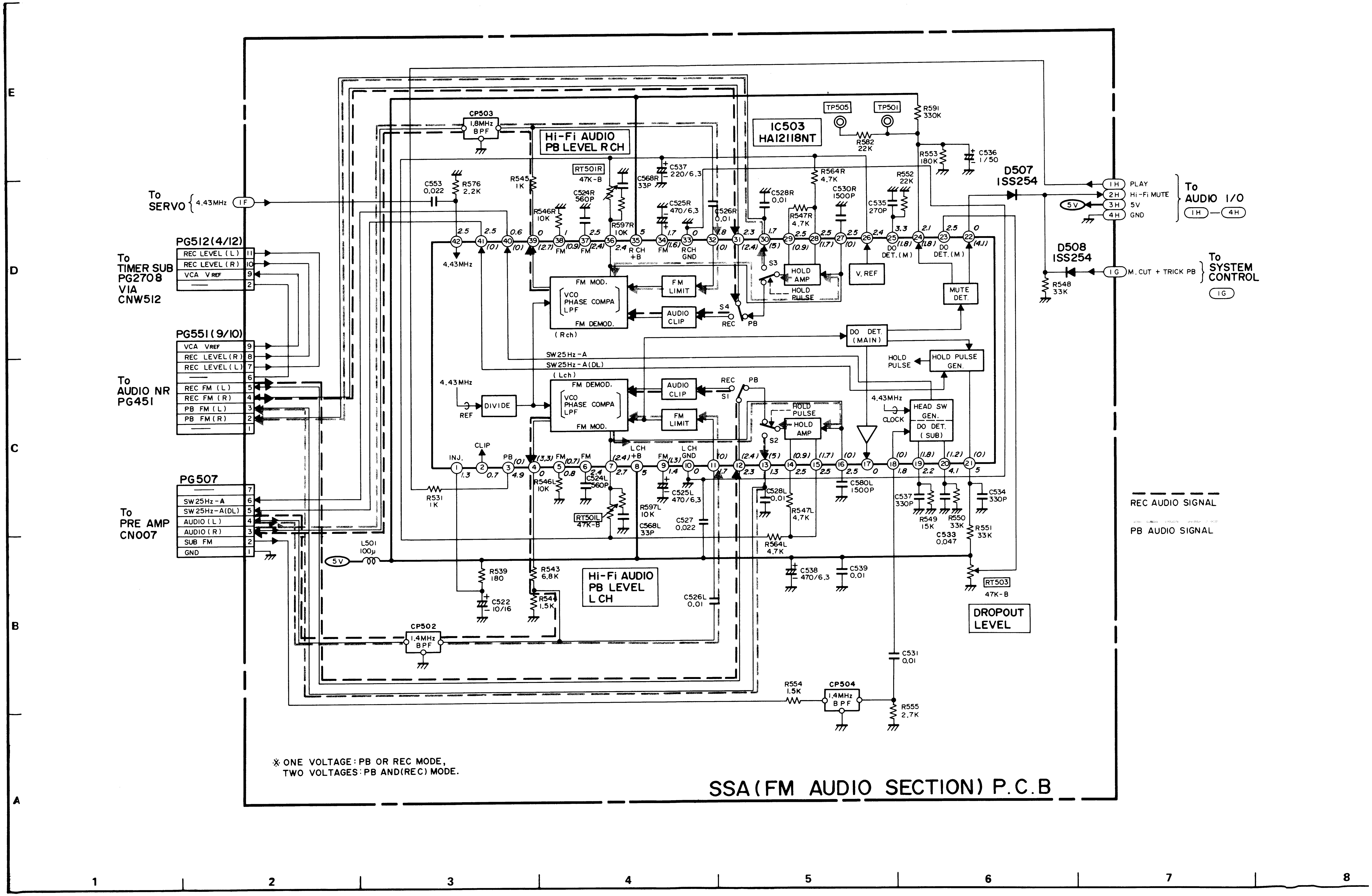
E
D
C
B
A
1
2
3
4
5
6
7
8
PG553 (8/10)
AUDIO (R)
AUDIO (L)
BILINGUAL
LINE (R)
LINE (L)
LINE
TUNER (L)
TUNER (R)
To AUDIO NR PG453
For UK
For WG, AEP
BILINGUAL
PG514
JACK
DEMODULATOR
GND
TUNER (R)
TUNER (L)
RF AUDIO
To YTJ PG1502 VIA CNW514
J501R AUDIO IN (R)
J501L AUDIO IN (L)
J502R AUDIO OUT (R)
J502L AUDIO OUT (L)
J505 MIC
BL501
BL502
BL503
BL504
IC507L M5201L
IC507R M5201L
IC509 BA4558D
IC504 BA4558D
IC501 HA12117NT
IC502 BA7755
To YTJ PG1504
PG905 (2/12)
JACK
CHARA GEN.
12V
-6V
To AUDIO NR PG451
PG551 (1/10)
AUDIO REC/PB HEAD
PG503
PB AUDIO
REC AUDIO
GND
AUDIO ERASE
AUDIO ERASE HEAD
TP506
TP507
AUDIO BIAS LEVEL
RT504 100K-B
T501
T502
Q517 2SD468C
Q516 2SA844CD
Q519 2SC2784E
Q518 2SA844CD
Q501 DTC144ES
Q502 2SA673C
Q503 2SC1740S
Q504 DTC144ES
ZD501 HZ9A2
ZD502 HZ9A2
D509 1SS254
D510 1SS254
D512 1SS254
D513 1SS254
PB AUDIO SIGNAL
REC AUDIO SIGNAL
PG504
FULL ERASE
GND
FULL ERASE HEAD
To IR CONVERTER CN3701
CN551
AUDIO PB LEVEL
RT505 1K-B
PRE AMP
REC AMP
ALC
ALC DET.
Hi-Fi INDI. DRIVE
INDI. INHIBIT
MUTE DET. MM
LINE/SIMUL
TUNER
TUNER/SIMUL
SAP
LINE
※ ONE VOLTAGE: PB
TWO VOLTAGES: PB
SSA (AUDIO I/


CN513
AUDIO (L)
AUDIO (R)
GND
LINE A/V
To YTJ (JACK) PG1501
PG511
MIX
GND (HP)
PHONE (L)
PHONE (R)
To TIMER SUB PG2707 VIA CNW511
PG554
METER (R)
METER (L)
MUTE
To AUDIO NR PG454
RV502 TV STILL 50K-B V.LOCK
RV501 PB STILL 50K-B V.LOCK
V. LOCK
To SERVO
PG512(8/12)
Hi-Fi INDI.
CH-1 INDI.(R)
CH-2 INDI.(L)
MPX
MONITOR OUT
To TIMER SUB PG2708 VIA CNW512
PG552
PB AUDIO (R)
PB AUDIO (L)
REC AUDIO (R)
REC AUDIO (L)
Hi-Fi MUTE
PLAY
To AUDIO NR PG452
To FM AUDIO
LINE/TUNER
SIMUL CAST
To SYSTEM CONTROL
LINE MUTE
SUB MUTE
BIAS CRTL
A. DUB
Q506 RTIP441S
Q505L 2SC2784E
Q505R 2SC2784E
Q511 DTC144ES
Q512 RTIP441S
D506L ISS254
D506R ISS254
ZD503 HZS4B1
Q520 DTC144ES
Q507 DTC144ES
D504 ISS254
D503 ISS254
D512 ISS254
D510 ISS254
D509 ISS254
D513 ISS254
D501 ISS254
IC501 HA12117NT
IC507L M5201L
IC507R M5201L
IC504 BA4558D
Q501 DTC144ES
Q502 2SA673C
Q503 2SC1740S
Q504 DTC144ES
Q516 2SA844CD
Q517 2SD468C
Q518 2SA844CD
ZD501 HZ9A2
ZD502 HZ9A2
L504 180μ
L503 15m
L506 5.6m
RT505 1K-B
AUDIO PB LEVEL
ALC
ALC DET.
PRE AMP
REC AMP
Hi-Fi INDI. DRIVE
INDI. INHIBIT
MUTE DET. MM
LINE/SIMUL
TUNER
SAP
TUNER/SIMUL
LINE
NOTE: DTC144ES
NOTE: RTIP441S
47K
4
5
6
7
8
9
10
11

※ ONE VOLTAGE: PB OR REC MODE,
TWO VOLTAGES: PB AND (REC) MODE.

SSA(AUDIO I/O SECTION) P.C.B

FM AUDIO


SSA(FM AUDIO SECTION) P.C.B
IC503
HA12118NT
Hi-Fi AUDIO PB LEVEL RCH
Hi-Fi AUDIO PB LEVEL L CH
DROPOUT LEVEL
To SERVO 4.43MHz 1F
PG512(4/12)
To TIMER SUB PG2708 VIA CNW512
REC LEVEL (L) 11
REC LEVEL (R) 10
VCA VREF 9
2
PG551(9/10)
VCA VREF 9
REC LEVEL(R) 8
REC LEVEL(L) 7
6
REC FM (L) 5
REC FM (R) 4
PB FM (L) 3
PB FM (R) 2
1
To AUDIO NR PG451
PG507
7
SW25Hz-A 6
SW25Hz-A(DL) 5
AUDIO (L) 4
AUDIO (R) 3
SUB FM 2
GND 1
To PRE AMP CN007
CP503 1.8MHz BPF
CP502 1.4MHz BPF
CP504 1.4MHz BPF
FM MOD.
VCO
PHASE COMPA
LPF
FM DEMOD.
(Rch)
(Lch)
FM LIMIT
AUDIO CLIP
DIVIDE
4.43MHz
REF
SW25Hz-A
SW25Hz-A(DL)
HOLD AMP
HOLD PULSE
V. REF
MUTE DET.
DO DET. (MAIN)
HOLD PULSE GEN.
HOLD PULSE
HEAD SW GEN.
DO DET. (SUB)
CLOCK
S1
S2
S3
S4
REC
PB
INJ.
CLIP
TP505
TP501
R591 330K
R582 22K
R553 180K
C536 1/50
D507 1SS254
D508 1SS254
R548 33K
1H PLAY
2H Hi-Fi MUTE
3H 5V
4H GND
To AUDIO I/O
1H — 4H
1G M. CUT + TRICK PB
To SYSTEM CONTROL
1G
C553 0.022
R576 2.2K
R545 1K
RT501R 47K-B
C537 220/6.3
C568R 33P
C524R 560P
R546R 10K
R597R 10K
C525R 470/6.3
C526R 0.01
C528R 0.01
R564R 4.7K
R547R 4.7K
C530R 1500P
R552 22K
C535 270P
R531 1K
L501 100μ
5V
R539 180
C522 10/16
R543 6.8K
R544 1.5K
R546L 10K
C524L 560P
RT501L 47K-B
R597L 10K
C568L 33P
C525L 470/6.3
C527 0.022
C526L 0.01
C528L 0.01
R547L 4.7K
R564L 4.7K
C538 470/6.3
C539 0.01
C580L 1500P
C537 330P
R549 15K
R550 33K
C533 0.047
R551 33K
C534 330P
RT503 47K-B
C531 0.01
R554 1.5K
R555 2.7K
※ ONE VOLTAGE: PB OR REC MODE,
TWO VOLTAGES: PB AND(REC) MODE.
REC AUDIO SIGNAL
PB AUDIO SIGNAL
E
D
C
B
A
1
2
3
4
5
6
7
8

MOTOR DRIVE

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IR CONVERTER	5-28
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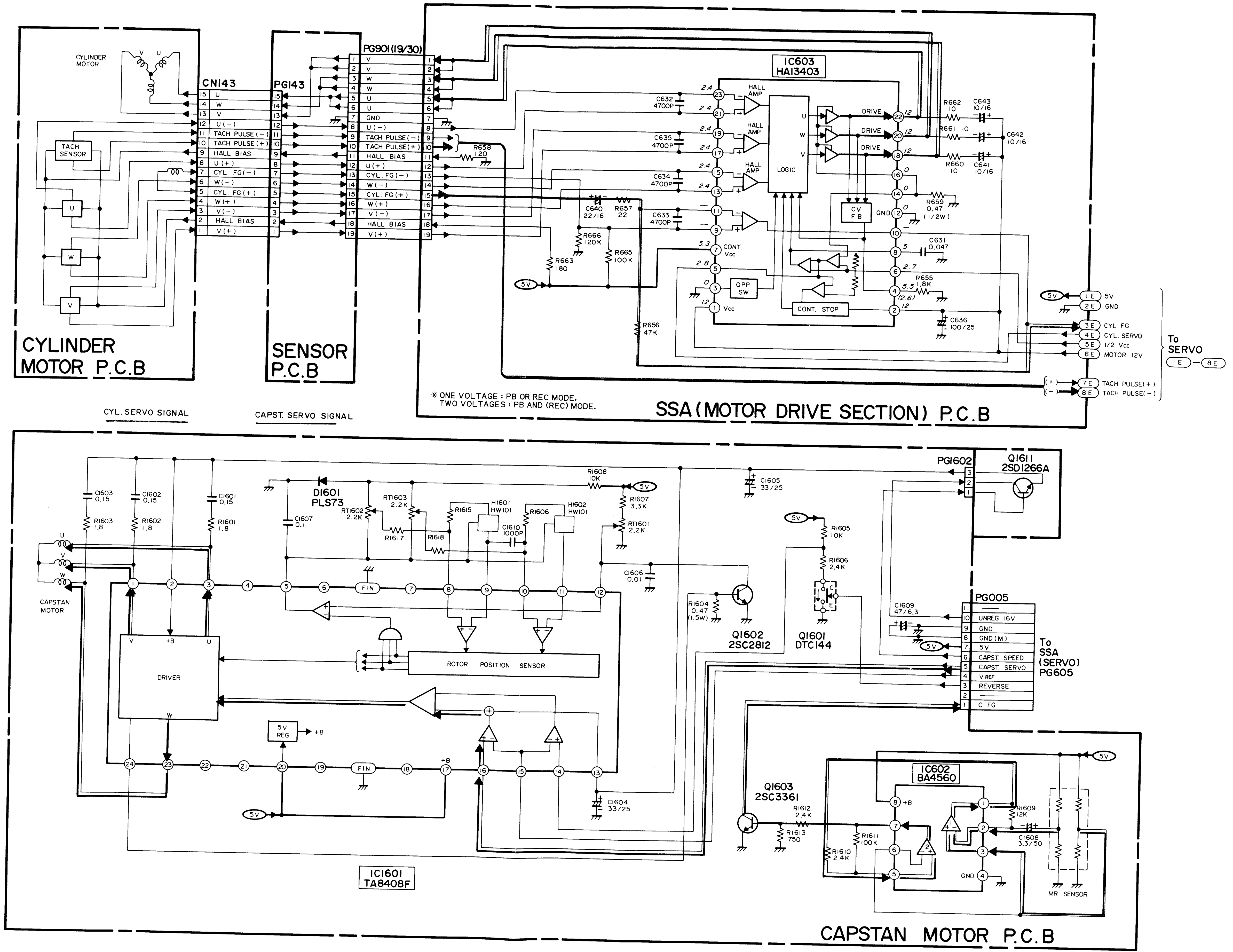
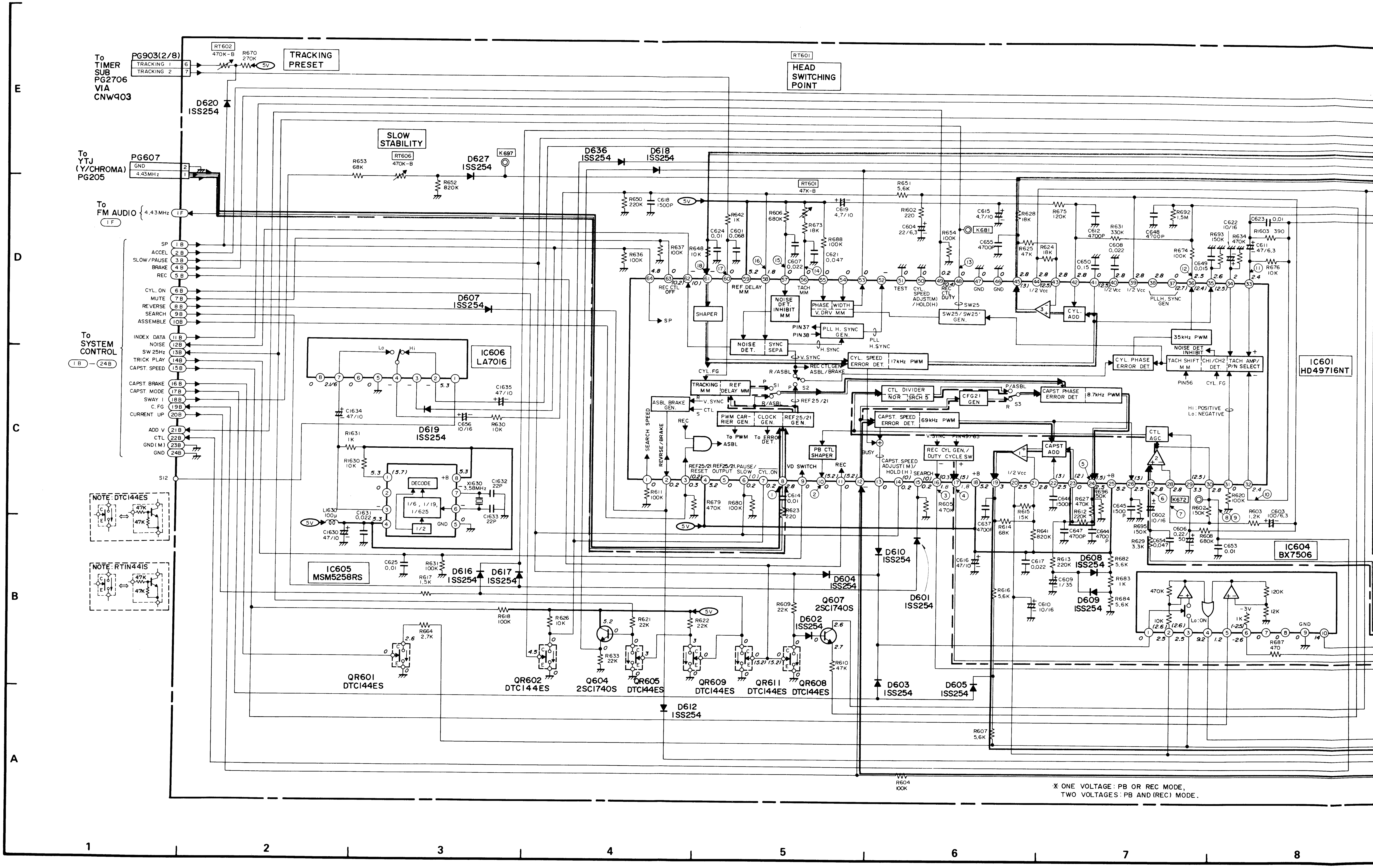
REGULATOR	5-84
RF CONVERTER	5-86

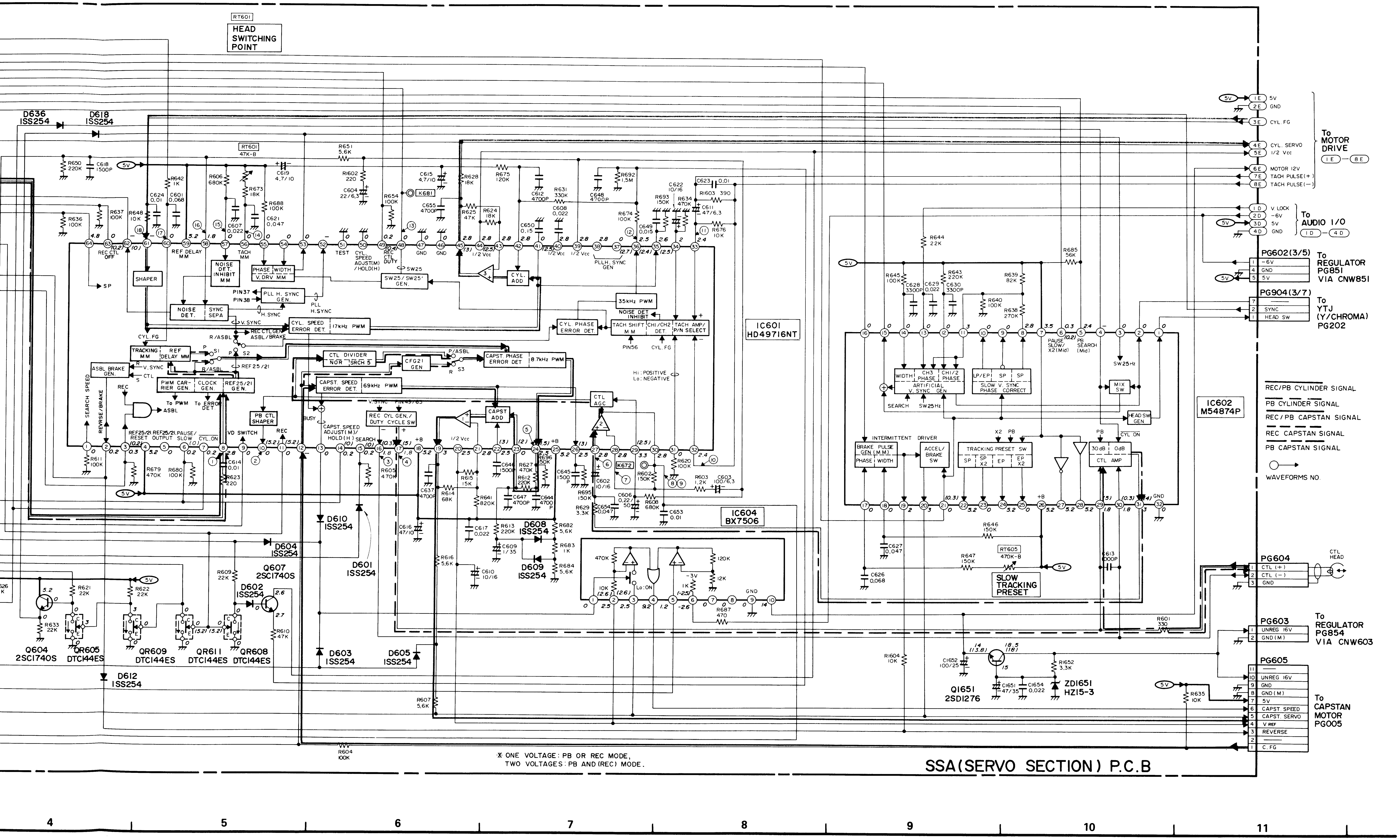


CYLINDER MOTOR
TACH SENSOR
CN143
PG143
PG901(19/30)
U
W
V
U(−)
TACH PULSE(−)
TACH PULSE(+)
HALL BIAS
U(+)
CYL. FG(−)
W(−)
CYL. FG(+)
W(+)
V(−)
V(+)
GND
R658 120
CYLINDER MOTOR P.C.B
SENSOR P.C.B
IC603 HA13403
HALL AMP
LOGIC
DRIVE
CV F.B
QPP SW
CONT. STOP
CONT. Vcc
Vcc
C632 4700P
C635 4700P
C634 4700P
C633 4700P
C640 22/16
R657 22
R666 120K
R665 100K
R663 180
R656 47K
R662 10
R661 10
R660 10
C643 10/16
C642 10/16
C641 10/16
R659 0.47 (1/2W)
C631 0.047
R655 1.8K
C636 100/25
5V
GND
CYL. FG
CYL. SERVO
1/2 Vcc
MOTOR 12V
TACH PULSE(+)
TACH PULSE(−)
To SERVO (1E)−(8E)
※ONE VOLTAGE : PB OR REC MODE.
TWO VOLTAGES : PB AND (REC) MODE.
SSA(MOTOR DRIVE SECTION) P.C.B
CYL. SERVO SIGNAL
CAPST. SERVO SIGNAL
CAPSTAN MOTOR
C1603 0.15
C1602 0.15
C1601 0.15
R1603 1.8
R1602 1.8
R1601 1.8
D1601 PLS73
C1607 0.1
RT1603 2.2K
RT1602 2.2K
R1617
R1618
R1615
R1606
H1601 HW101
H1602 HW101
C1610 1000P
R1608 10K
R1607 3.3K
RT1601 2.2K
C1606 0.01
C1605 33/25
FIN
DRIVER
ROTOR POSITION SENSOR
5V REG
+B
C1604 33/25
IC1601 TA8408F
R1604 0.47 (1.5W)
Q1602 2SC2812
R1605 10K
R1606 2.4K
Q1601 DTC144
PG1602
Q1611 2SD1266A
PG005
C1609 47/6.3
UNREG 16V
GND (M)
CAPST. SPEED
CAPST. SERVO
V REF
REVERSE
C FG
To SSA (SERVO) PG605
Q1603 2SC3361
R1612 2.4K
R1613 750
R1611 100K
R1610 2.4K
IC602 BA4560
R1609 12K
C1608 3.3/50
MR SENSOR
CAPSTAN MOTOR P.C.B

SERVO



To TIMER SUB PG2706 VIA CNW903
PG903(2/8)
TRACKING 1
TRACKING 2
RT602 470K-B
R670 270K
TRACKING PRESET
RT601
HEAD SWITCHING POINT
D620 1SS254
To YTJ (Y/CHROMA) PG205
PG607
GND
4.43MHz
SLOW STABILITY
R653 68K
RT606 470K-B
R652 820K
D627 1SS254
K697
D636 1SS254
D618 1SS254
To FM AUDIO
1F
To SYSTEM CONTROL
1B – 24B
SP
ACCEL
SLOW/PAUSE
BRAKE
REC
CYL. ON
MUTE
REVERSE
SEARCH
ASSEMBLE
INDEX DATA
NOISE
SW 25Hz
TRICK PLAY
CAPST. SPEED
CAPST BRAKE
CAPST MODE
SWAY I
C. FG
CURRENT UP
ADD V
CTL
GND(M)
GND
S12
NOTE: DTC144ES
NOTE: RTIN441S
47K
D607 1SS254
IC606 LA7016
D619 1SS254
C1635 47/10
C1634 47/10
C656 10/16
R630 10K
R1631 1K
R1630 10K
DECODE
1/6, 1/19, 1/625
1/2
X1630 3.58MHz
C1632 22P
C1633 22P
L1630 100μ
C1630 47/10
C1631 0.022
IC605 MSM5258RS
C625 0.01
R631 100K
R617 1.5K
D616 1SS254
D617 1SS254
R618 100K
R626 10K
R621 22K
R622 22K
R664 2.7K
R633 22K
QR601 DTC144ES
QR602 DTC144ES
Q604 2SC1740S
QR605 DTC144ES
QR609 DTC144ES
QR611 DTC144ES
QR608 DTC144ES
D612 1SS254
R609 22K
Q607 2SC1740S
D602 1SS254
R610 47K
D603 1SS254
D605 1SS254
D604 1SS254
D610 1SS254
D601 1SS254
R607 5.6K
R604 100K
R650 220K
C618 1500P
R642 1K
C624 0.01
C601 0.068
R606 680K
RT601 47K-B
R673 18K
C619 4.7/10
R688 100K
C607 0.022
C621 0.047
R651 5.6K
R1602 220
C604 22/6.3
R654 100K
K681
C615 4.7/10
C655 4700P
R628 18K
R625 47K
R624 18K
R675 120K
C612 4700P
C650 0.15
R631 330K
C608 0.022
C648 4700P
R692 1.5M
R674 100K
C649 0.015
R693 150K
R634 470K
C622 10/16
C611 47/6.3
C623 0.01
R1603 390
R676 10K
R636 100K
R637 100K
R648 10K
REC CTL OFF
REF DELAY MM
TACH MM
TEST
CYL SPEED ADJST(M)/HOLD(H)
REC CTL DUTY
GND
1/2 Vcc
PLLH. SYNC GEN
SHAPER
NOISE DET. INHIBIT MM
PHASE WIDTH
V. DRV MM
SW25/SW25' GEN.
SW25
CYL. ADD
PLL H. SYNC GEN.
PIN37
PIN38
NOISE DET.
SYNC SEPA
H. SYNC
PLL H. SYNC
V. SYNC
CYL. SPEED ERROR DET.
17kHz PWM
REC CTL GEN/ASBL/BRAKE
CYL.FG
R/ASBL
TRACKING MM
REF DELAY MM
ASBL BRAKE GEN.
PWM CARRIER GEN
CLOCK GEN.
REF25/21 GEN.
To PWM
To ERROR DET.
ASBL
SEARCH SPEED
REVRSE/BRAKE
S1
S2
S3
REF 25/21
CTL DIVIDER
NOR
SRCH 5
CFG21 GEN
P/ASBL
CAPST PHASE ERROR DET
8.7kHz PWM
CAPST. SPEED ERROR DET.
69kHz PWM
PB CTL SHAPER
REC CYL GEN./DUTY CYCLE SW
V. SYNC
PIN 49/63
BUSY
CAPST. SPEED ADJUST(M)/HOLD(H)
SEARCH
CAPST ADD
CTL AGC
35kHz PWM
NOISE DET INHIBIT
CYL PHASE ERROR DET
TACH SHIFT MM
CH1/CH2 DET.
TACH AMP/P/N SELECT
PIN56
CYL. FG
Hi: POSITIVE
Lo: NEGATIVE
IC601 HD49716NT
REF25/21
REF25/21.PAUSE/RESET OUTPUT SLOW
CYL.ON
VD SWITCH
R611 100K
R679 470K
R680 100K
C614 0.01
R623 220
R605 470K
C637 4700P
R614 68K
R615 15K
R641 820K
C646 1500P
C647 4700P
R627 470K
R612 220K
C644 4700P
R696 150K
C645 1500P
C602 10/16
R629 3.3K
R695 150K
C654 0.047
C606 0.22/50
R608 680K
C653 0.01
K672
R602 150K
R603 1.2K
C603 100/6.3
R620 100K
IC604 BX7506
C616 47/10
C617 0.022
R613 220K
C609 1/35
D608 1SS254
D609 1SS254
R682 5.6K
R683 1K
R684 5.6K
R616 5.6K
C610 10/16
470K
10K
Lo: ON
-3V
1K
120K
12K
GND
R687 470
※ ONE VOLTAGE: PB OR REC MODE,
TWO VOLTAGES: PB AND (REC) MODE.
E
D
C
B
A
1
2
3
4
5
6
7
8


HEAD SWITCHING POINT
RT601
IC601 HD49716NT
IC602 M54874P
IC604 BX7506
SSA(SERVO SECTION) P.C.B
※ ONE VOLTAGE: PB OR REC MODE,
TWO VOLTAGES: PB AND (REC) MODE.
To MOTOR DRIVE (1E)-(8E)
5V
GND
CYL FG
CYL. SERVO
1/2 Vcc
MOTOR 12V
TACH PULSE(+)
TACH PULSE(−)
To AUDIO I/O (1D)-(4D)
V. LOCK
-6V
PG602(3/5) To REGULATOR PG851 VIA CNW851
PG904(3/7) To YTJ (Y/CHROMA) PG202
SYNC
HEAD SW
PG604
CTL (+)
CTL (−)
CTL HEAD
PG603 To REGULATOR PG854 VIA CNW603
UNREG 16V
GND(M)
PG605 To CAPSTAN MOTOR PG005
CAPST. SPEED
CAPST. SERVO
V REF
REVERSE
C. FG
REC/PB CYLINDER SIGNAL
PB CYLINDER SIGNAL
REC/PB CAPSTAN SIGNAL
REC CAPSTAN SIGNAL
PB CAPSTAN SIGNAL
WAVEFORMS NO.
SHAPER
NOISE DET.
SYNC SEPA
NOISE DET. INHIBIT MM
PHASE WIDTH V. DRV MM
PLL H. SYNC GEN.
SW25/SW25' GEN.
CYL. ADD
CYL. SPEED ERROR DET.
17kHz PWM
CYL. PHASE ERROR DET.
35kHz PWM
NOISE DET INHIBIT
TACH SHIFT MM
CH1/CH2 DET.
TACH AMP/ P/N SELECT
TRACKING MM
REF DELAY MM
ASBL BRAKE GEN.
PWM CARRIER GEN.
CLOCK GEN.
REF25/21 GEN.
CTL DIVIDER NOR SRCH 5
CFG21 GEN
CAPST. PHASE ERROR DET
8.7kHz PWM
CAPST. SPEED ERROR DET.
69kHz PWM
REC CYL GEN./ DUTY CYCLE SW
CAPST ADD
PB CTL SHAPER
CTL AGC
WIDTH CH3 PHASE CH1/2 PHASE ARTIFICIAL V. SYNC GEN
LP/EP SP SP SLOW V. SYNC PHASE CORRECT
MIX SW
HEAD SW GEN
BRAKE PULSE GEN (M.M) PHASE WIDTH
ACCEL/ BRAKE SW
TRACKING PRESET SW SP SP X2 EP EP X2
30dB 0dB CTL AMP
INTERMITTENT DRIVER
SLOW TRACKING PRESET
RT605 470K-B
Q1651 2SD1276
ZD1651 HZ15-3
Q604 2SC1740S
QR605 DTC144ES
QR609 DTC144ES
QR611 DTC144ES
QR608 DTC144ES
Q607 2SC1740S
D602 1SS254
D604 1SS254
D601 1SS254
D603 1SS254
D605 1SS254
D608 1SS254
D609 1SS254
D610 1SS254
D612 1SS254
D636 1SS254
D618 1SS254
K681
K672
Hi: POSITIVE
Lo: NEGATIVE
SEARCH SPEED
REVERSE/BRAKE
REC CTL OFF
REF DELAY MM
TACH MM
TEST
CYL. SPEED ADJUST(M) /HOLD(H)
REC CTL DUTY
GND
PLLH. SYNC GEN
CAPST. SPEED ADJUST(M)/ HOLD(H)
VD SWITCH
REF25/21 RESET
REF25/21 OUTPUT
PAUSE/ SLOW
CYL. ON
SEARCH
PAUSE SLOW/ X2(Mid)
PB SEARCH (Mid)
SW25Hz
R604 100K
R601 330
R635 10K
R1604 10K
R1652 3.3K
C1652 100/25
C1651 47/35
C1654 0.022
4
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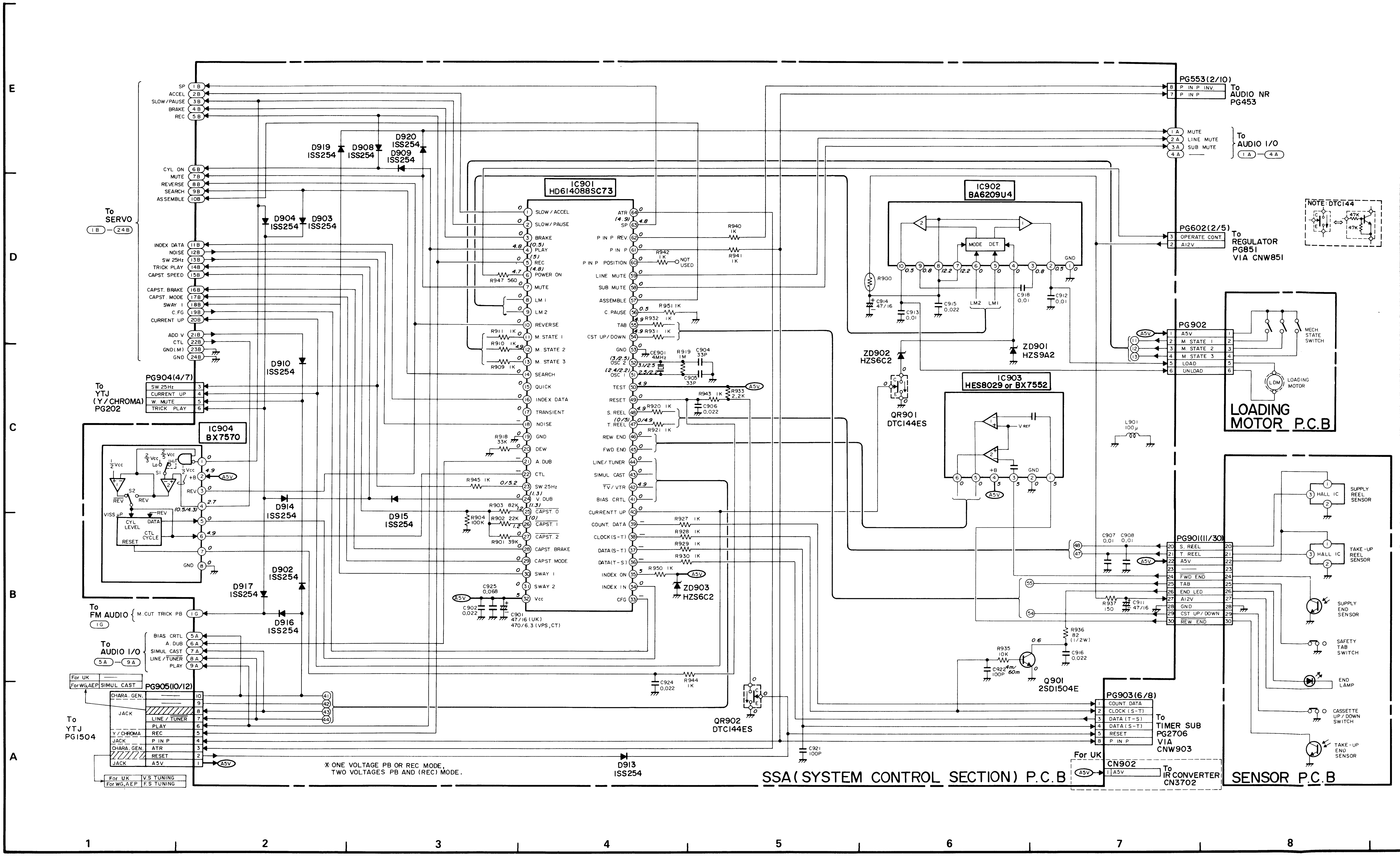
6
7
8
9
10
11

SYSTEM CONTROL


IC901
HD614088SC73
IC902
BA6209U4
IC903
HES8029 or BX7552
IC904
BX7570
To SERVO
1B — 24B
SP
ACCEL
SLOW/PAUSE
BRAKE
REC
CYL ON
MUTE
REVERSE
SEARCH
ASSEMBLE
INDEX DATA
NOISE
SW 25Hz
TRICK PLAY
CAPST SPEED
CAPST. BRAKE
CAPST. MODE
SWAY 1
C.FG
CURRENT UP
ADD V
CTL
GND(M)
GND
PG904(4/7)
To YTJ (Y/CHROMA) PG202
SW 25Hz
CURRENT UP
W. MUTE
TRICK PLAY
D919 ISS254
D908 ISS254
D920 ISS254
D909 ISS254
D904 ISS254
D903 ISS254
D910 ISS254
D914 ISS254
D915 ISS254
D902 ISS254
D917 ISS254
D916 ISS254
D913 ISS254
SLOW/ACCEL
SLOW/PAUSE
BRAKE
PLAY
REC
POWER ON
MUTE
LM1
LM2
REVERSE
M. STATE 1
M. STATE 2
M. STATE 3
SEARCH
QUICK
INDEX DATA
TRANSIENT
NOISE
GND
DEW
A. DUB
CTL
SW 25Hz
V. DUB
CAPST. 0
CAPST. 1
CAPST. 2
CAPST BRAKE
CAPST MODE
SWAY 1
SWAY 2
Vcc
ATR
SP
P IN P REV.
P IN P
P IN P POSITION
LINE MUTE
SUB MUTE
ASSEMBLE
C. PAUSE
TAB
CST UP/DOWN
GND
OSC 2
OSC 1
TEST
RESET
S. REEL
T. REEL
REW END
FWD END
LINE/TUNER
SIMUL CAST
TV/VTR
BIAS CRTL
CURRENTT UP
COUNT. DATA
CLOCK(S-T)
DATA(S-T)
DATA(T-S)
INDEX ON
INDEX IN
CFG
R947 560
R911 1K
R910 1K
R909 1K
R918 33K
R945 1K
R903 82K
R904 100K
R902 22K
R901 39K
R942 1K
NOT USED
R940 1K
R941 1K
R951 1K
R932 1K
R931 1K
CE901 4MHz
R919 1M
C904 33P
C905 33P
R943 1K
R933 2.2K
R920 1K
C906 0.022
R921 1K
R927 1K
R928 1K
R929 1K
R930 1K
R950 1K
ZD903 HZS6C2
C925 0.068
C902 0.022
C901 47/16 (UK) 470/6.3 (VPS, CT)
C924 0.022
R944 1K
QR902 DTC144ES
C921 100P
A5V
R900
C914 47/16
C913 0.01
C915 0.022
MODE DET
LM2
LM1
C918 0.01
C912 0.01
GND
ZD902 HZS6C2
ZD901 HZS9A2
QR901 DTC144ES
V REF
+B
L901 100μ
C907 0.01
C908 0.01
R937 150
C911 47/16
R936 82 (1/2W)
C916 0.022
R935 10K
C922 4m/60m 100P
Q901 2SD1504E
PG553(2/10)
P IN P INV.
P IN P
To AUDIO NR PG453
MUTE
LINE MUTE
SUB MUTE
To AUDIO I/O 1A — 4A
PG602(2/5)
OPERATE CONT
A12V
To REGULATOR PG851 VIA CNW851
NOTE: DTC144
47K
47K
PG902
A5V
M. STATE 1
M. STATE 2
M. STATE 3
LOAD
UNLOAD
MECH STATE SWITCH
LDM
LOADING MOTOR
LOADING MOTOR P.C.B
PG901(11/30)
S. REEL
T. REEL
A5V
FWD END
TAB
END LED
A12V
GND
CST UP/DOWN
REW END
HALL IC
SUPPLY REEL SENSOR
TAKE-UP REEL SENSOR
SUPPLY END SENSOR
SAFETY TAB SWITCH
END LAMP
CASSETTE UP/DOWN SWITCH
TAKE-UP END SENSOR
SENSOR P.C.B
PG903(6/8)
COUNT DATA
CLOCK(S-T)
DATA(T-S)
DATA(S-T)
RESET
P IN P
To TIMER SUB PG2706 VIA CNW903
For UK
CN902
A5V
To IR CONVERTER CN3702
SSA(SYSTEM CONTROL SECTION) P.C.B
REV
S1
S2
CYL LEVEL
DATA
CTL CYCLE
RESET
VISS μP
GND
To FM AUDIO
M. CUT TRICK PB
1G
To AUDIO I/O 5A — 9A
BIAS CRTL
A. DUB
SIMUL CAST
LINE/TUNER
PLAY
For UK
For WG, AEP SIMUL CAST
PG905(10/12)
To YTJ PG1504
CHARA. GEN.
JACK
LINE/TUNER
PLAY
Y/CHROMA
REC
P IN P
ATR
RESET
A5V
For UK V.S TUNING
For WG, AEP F.S TUNING
※ ONE VOLTAGE PB OR REC MODE, TWO VOLTAGES PB AND (REC) MODE.
E
D
C
B
A
1
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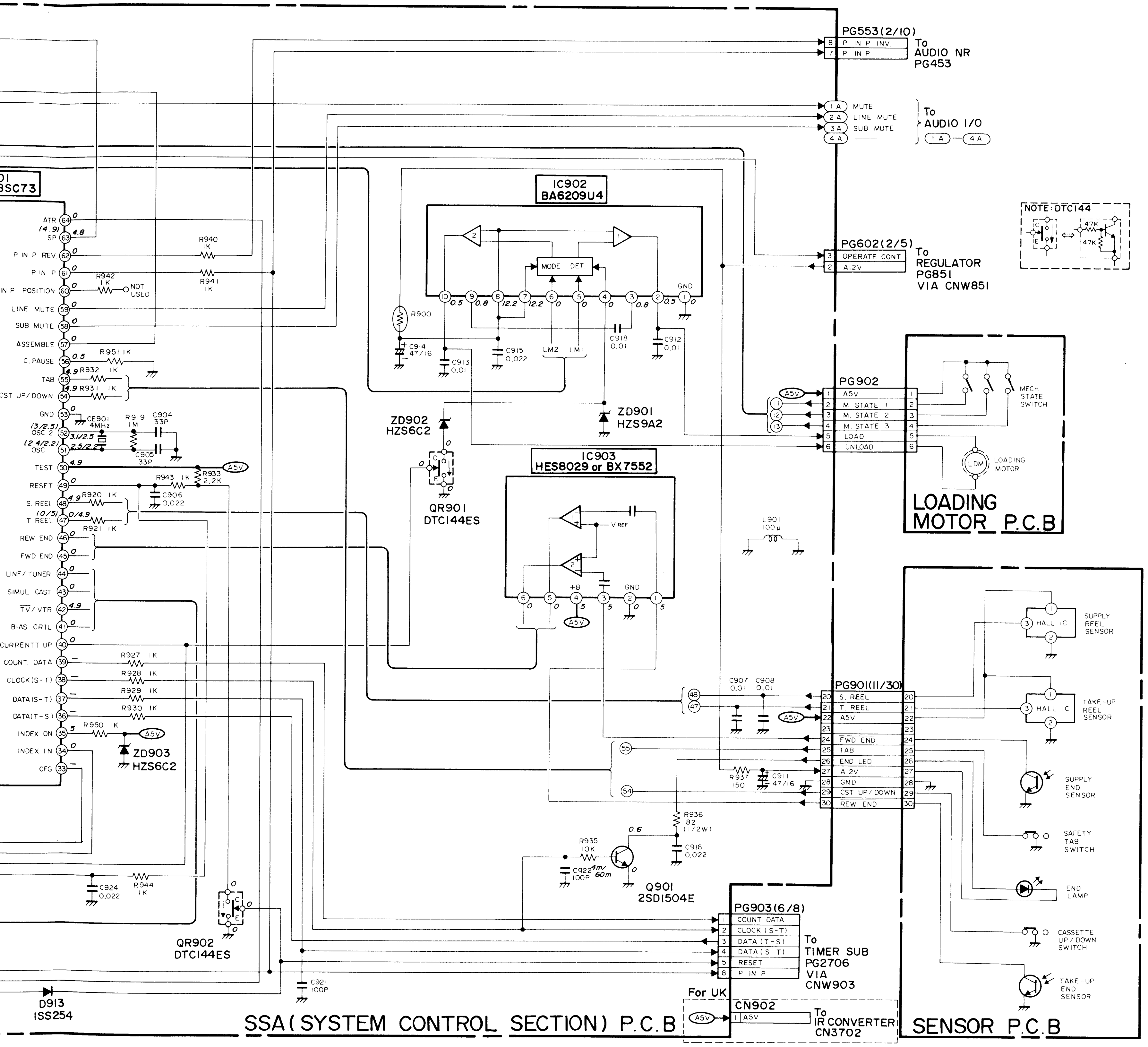
7
8

SENSOR CIRCUIT BOARD


PG553(2/10)
P IN P INV
P IN P
To AUDIO NR PG453
MUTE
LINE MUTE
SUB MUTE
To AUDIO I/O
IC902 BA6209U4
MODE DET
LM2 LM1
PG602(2/5)
OPERATE CONT
A12V
To REGULATOR PG851 VIA CNW851
NOTE DTC144
47K
ZD901 HZS9A2
ZD902 HZS6C2
QR901 DTC144ES
IC903 HES8029 or BX7552
V REF
PG902
A5V
M. STATE 1
M. STATE 2
M. STATE 3
LOAD
UNLOAD
MECH STATE SWITCH
LDM
LOADING MOTOR
LOADING MOTOR P.C.B
L901 100μ
ATR
SP
P IN P REV
P IN P
P IN P POSITION
LINE MUTE
SUB MUTE
ASSEMBLE
C. PAUSE
TAB
CST UP/DOWN
GND
OSC 2
OSC 1
TEST
RESET
S. REEL
T. REEL
REW END
FWD END
LINE/TUNER
SIMUL CAST
TV/VTR
BIAS CRTL
CURRENTT UP
COUNT DATA
CLOCK(S-T)
DATA(S-T)
DATA(T-S)
INDEX ON
INDEX IN
CFG
R940 1K
R941 1K
R942 1K
NOT USED
R951 1K
R932 1K
R931 1K
CE901 4MHz
R919 1M
C904 33P
C905 33P
R943 1K
R933 2.2K
C906 0.022
R920 1K
R921 1K
R927 1K
R928 1K
R929 1K
R930 1K
R950 1K
ZD903 HZS6C2
R900
C914 47/16
C913 0.01
C915 0.022
C918 0.01
C912 0.01
C907 0.01
C908 0.01
PG901(11/30)
S. REEL
T. REEL
FWD END
TAB
END LED
A12V
GND
CST UP/DOWN
REW END
R937 150
C911 47/16
R936 82 (1/2W)
C916 0.022
R935 10K
C922 100P
Q901 2SD1504E
C924 0.022
R944 1K
QR902 DTC144ES
C321 100P
D913 1SS254
PG903(6/8)
COUNT DATA
CLOCK (S-T)
DATA (T-S)
DATA (S-T)
RESET
P IN P
To TIMER SUB PG2706 VIA CNW903
For UK
CN902
To IR CONVERTER CN3702
SSA(SYSTEM CONTROL SECTION) P.C.B
HALL IC
SUPPLY REEL SENSOR
TAKE-UP REEL SENSOR
SUPPLY END SENSOR
SAFETY TAB SWITCH
END LAMP
CASSETTE UP/DOWN SWITCH
TAKE-UP END SENSOR
SENSOR P.C.B
4
5
6
7
8
9
10
11

SCHEMATIC DIAGRAM	PAGE
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TIMER (UK)	5-16
FRONT SW (UK)	5-20
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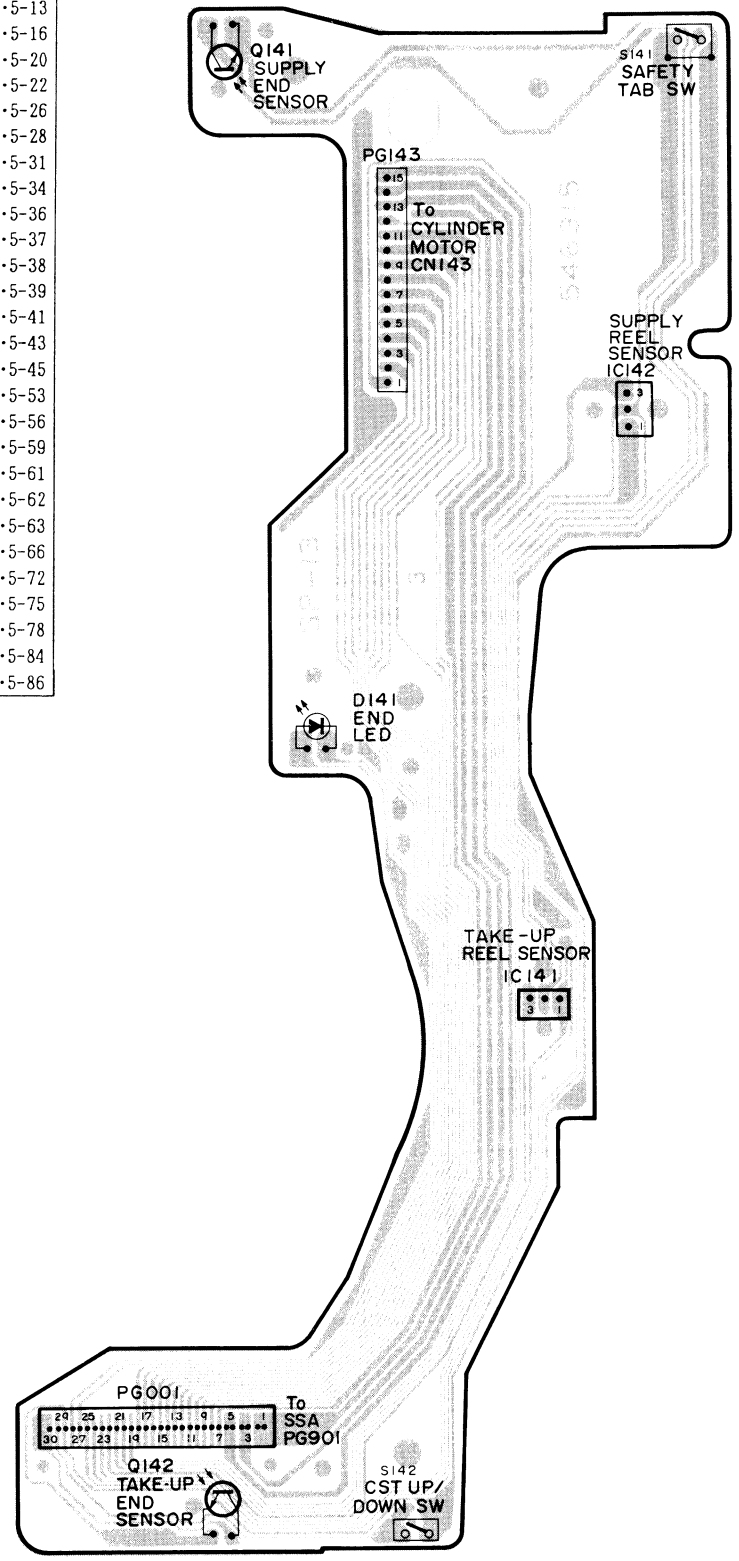
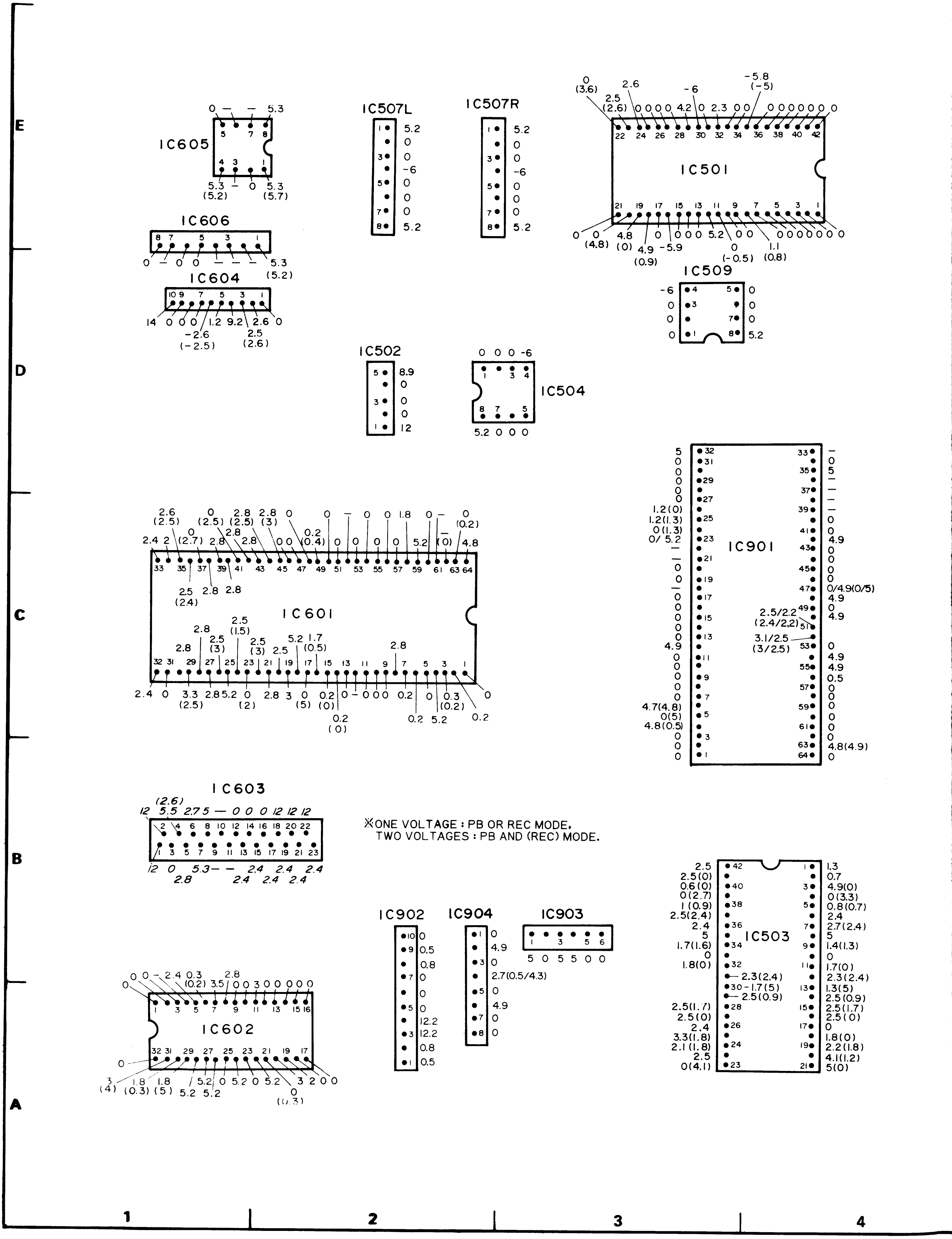
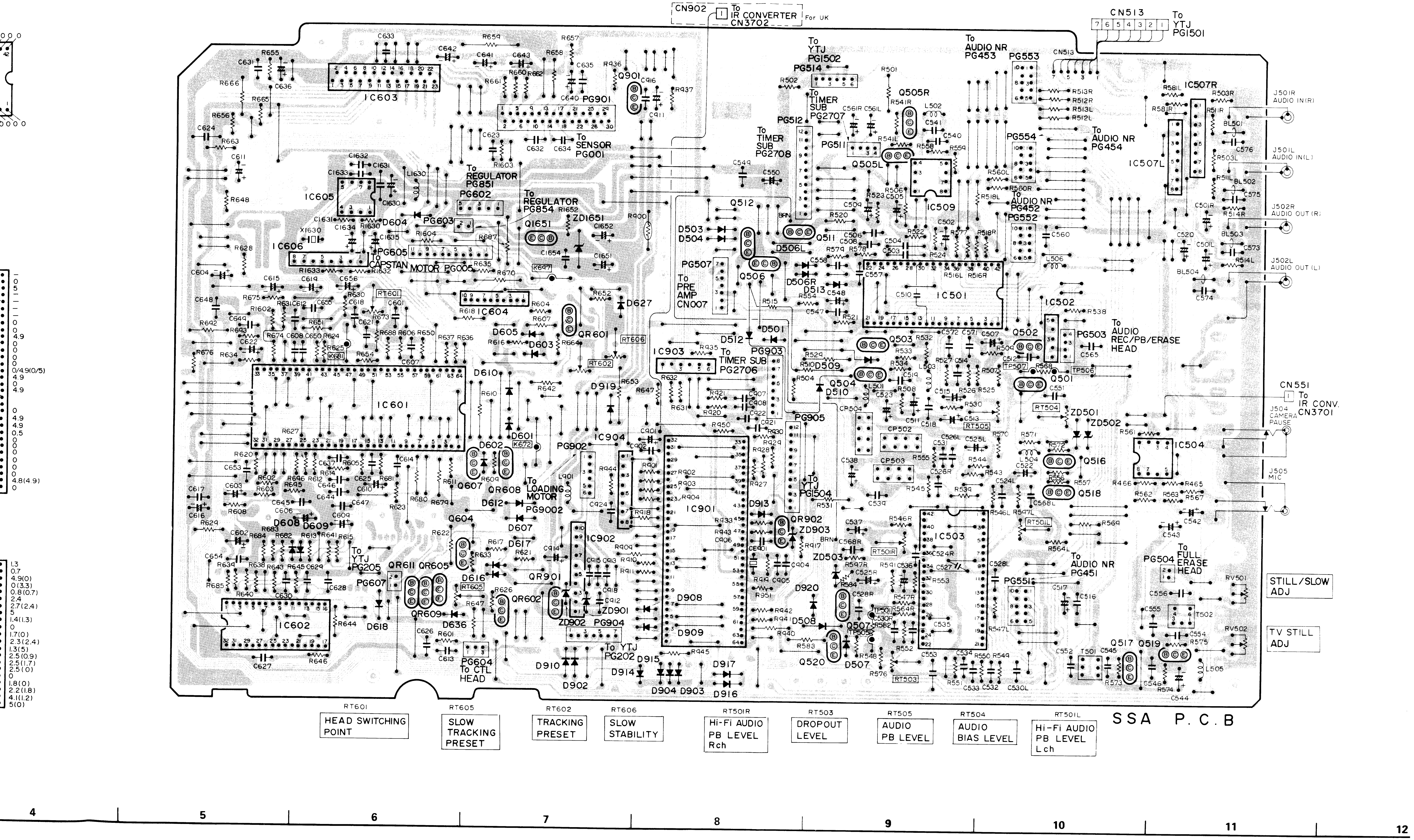

Q141 SUPPLY END SENSOR
S141 SAFETY TAB SW
PG143
To CYLINDER MOTOR CN143
SUPPLY REEL SENSOR IC142
D141 END LED
TAKE-UP REEL SENSOR IC141
PG001
To SSA PG901
Q142 TAKE-UP END SENSOR
S142 CST UP/DOWN SW

SENSOR P.C.B

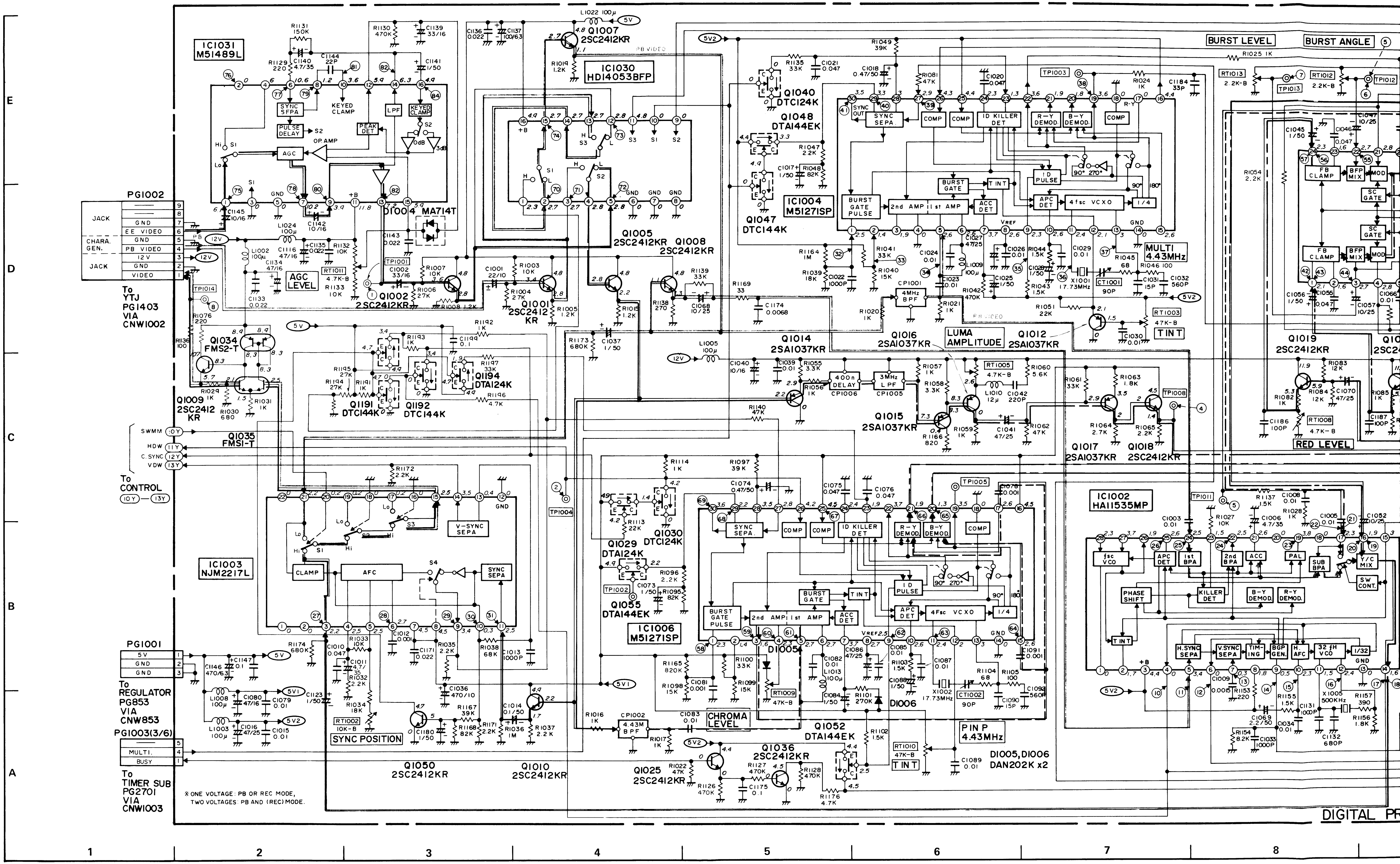
SSA CIRCUIT BOARD

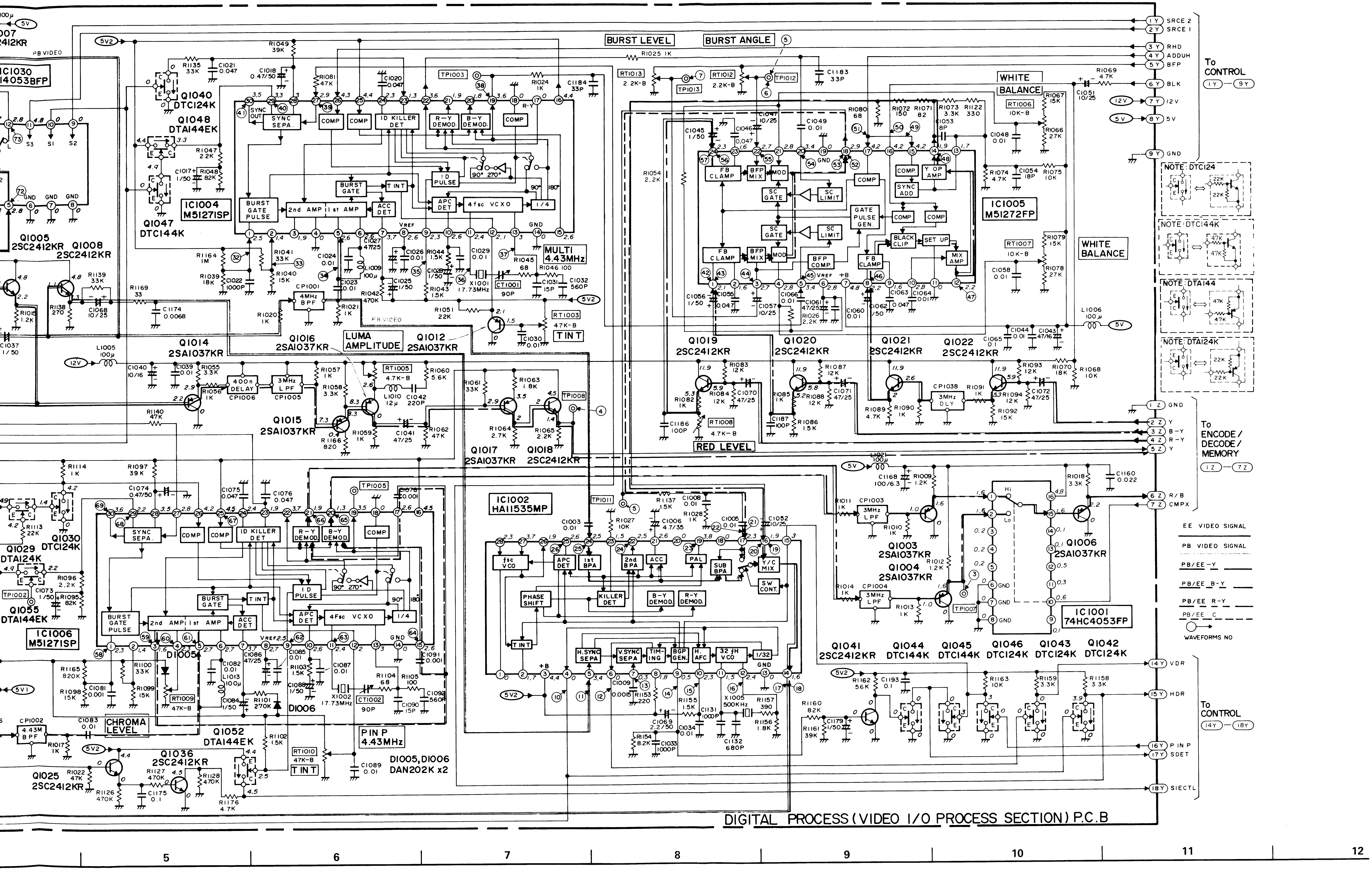

IC605
IC507L
IC507R
IC501
IC606
IC604
IC509
IC502
IC504
IC601
IC901
IC603
IC902
IC904
IC903
IC503
IC602
E
D
C
B
A
1
2
3
4

※ONE VOLTAGE : PB OR REC MODE.
TWO VOLTAGES : PB AND (REC) MODE.


CN902 To IR CONVERTER CN3702 For UK
CN513 To YTJ PG1501
To YTJ PG1502
PG514
To TIMER SUB PG2707
To TIMER SUB PG2708
PG512
PG511
To AUDIO NR PG453
PG553
To AUDIO NR PG454
PG554
To AUDIO NR PG452
PG552
IC507R
IC507L
J501R AUDIO IN (R)
J501L AUDIO IN (L)
J502R AUDIO OUT (R)
J502L AUDIO OUT (L)
IC603
PG901
To SENSOR PG001
Q901
IC605
To REGULATOR PG851
PG602
To REGULATOR PG854
PG603
Q1651
ZD1651
IC606
PG605 To CAPSTAN MOTOR PG005
IC604
RT601
RT606
RT602
D627
QR601
D605
D603
IC601
D610
D602
D601
Q607
QR608
To LOADING MOTOR PG9002
PG902
IC904
IC903
To TIMER SUB PG2706
PG903
Q512
D503
D504
Q511
D506L
Q506
D506R
PG507 To PRE AMP CN007
D512
D501
D513
IC509
Q505R
Q505L
IC501
IC502
PG503 To AUDIO REC/PB/ERASE HEAD
Q502
Q503
Q501
Q504
D509
D510
PG905
To YTJ PG1504
IC901
QR902
ZD903
ZD503
D913
D908
D909
IC902
QR901
QR602
ZD901
ZD902
PG904 To YTJ PG202
D910
D902
D914
D915
D904
D903
D917
D916
D920
D508
Q507
Q520
D507
IC503
RT505
RT504
RT501R
RT501L
RT503
ZD501
ZD502
Q516
Q518
IC504
CN551 To IR CONV. CN3701
J504 CAMERA PAUSE
J505 MIC
PG504 To FULL ERASE HEAD
To AUDIO NR PG451
PG551
T501
T502
Q517
Q519
RV501
RV502
STILL/SLOW ADJ
TV STILL ADJ
IC602
To YTJ PG205
PG607
QR611
QR605
QR609
D636
D616
D617
Q604
D612
D607
D608
D609
D618
PG604 To CTL HEAD
RT605
RT601 HEAD SWITCHING POINT
RT605 SLOW TRACKING PRESET
RT602 TRACKING PRESET
RT606 SLOW STABILITY
RT501R Hi-Fi AUDIO PB LEVEL Rch
RT503 DROPOUT LEVEL
RT505 AUDIO PB LEVEL
RT504 AUDIO BIAS LEVEL
RT501L Hi-Fi AUDIO PB LEVEL Lch
SSA P.C.B
4
5
6
7
8
9
10
11
12

VIDEO I/O PROCESS


IC1031 M51489L
IC1030 HD14053BFP
IC1004 M51271SP
IC1003 NJM2217L
IC1006 M51271SP
IC1002 HA11535MP
Q1007 2SC2412KR
Q1040 DTC124K
Q1048 DTA144EK
Q1047 DTC144K
Q1005 2SC2412KR
Q1008 2SC2412KR
Q1002 2SC2412KR
Q1001 2SC2412 KR
Q1034 FMS2-T
Q1009 2SC2412 KR
Q1035 FMS1-T
Q1191 DTC144K
Q1192 DTC144K
Q1194 DTA124K
Q1014 2SA1037KR
Q1016 2SA1037KR
Q1012 2SA1037KR
Q1015 2SA1037KR
Q1017 2SA1037KR
Q1018 2SC2412KR
Q1019 2SC2412KR
Q1029 DTA124K
Q1030 DTC124K
Q1055 DTA144EK
Q1050 2SC2412KR
Q1010 2SC2412KR
Q1025 2SC2412KR
Q1036 2SC2412KR
Q1052 DTA144EK
D1004 MA714T
D1005
D1006
D1005,D1006 DAN202K x2
PG1002
JACK
GND
EE VIDEO
CHARA. GEN.
PB VIDEO
12V
VIDEO
To YTJ PG1403 VIA CNW1002
SWMM
HDW
C. SYNC
VDW
To CONTROL
PG1001
5V
To REGULATOR PG853 VIA CNW853
PG1003(3/6)
MULTI.
BUSY
To TIMER SUB PG2701 VIA CNW1003
※ONE VOLTAGE: PB OR REC MODE, TWO VOLTAGES: PB AND (REC) MODE.
SYNC SEPA
PULSE DELAY
KEYED CLAMP
PEAK DET
LPF
AGC
OP AMP
AGC LEVEL
SYNC POSITION
CLAMP
AFC
V-SYNC SEPA
BURST LEVEL
BURST ANGLE
COMP
ID KILLER DET
R-Y DEMOD
B-Y DEMOD
BURST GATE
T INT
ID PULSE
BURST GATE PULSE
2nd AMP
1st AMP
ACC DET
APC DET
4fsc VCXO
1/4
MULTI 4.43MHz
LUMA AMPLITUDE
TINT
400n DELAY
3MHz LPF
4MHz BPF
4.43M BPF
CHROMA LEVEL
PIN P 4.43MHz
RED LEVEL
FB CLAMP
BFP MIX
MOD
SC GATE
fsc VCO
1st BPA
2nd BPA
ACC
PAL
SUB BPA
Y/C MIX
SW CONT.
PHASE SHIFT
KILLER DET
H.SYNC SEPA
V.SYNC SEPA
TIMING
BGP GEN.
H. AFC
32 fH VCO
1/32
DIGITAL P


DIGITAL PROCESS (VIDEO I/O PROCESS SECTION) P.C.B
IC1004 M51271SP
IC1006 M51271SP
IC1005 M51272FP
IC1002 HA11535MP
IC1001 74HC4053FP
IC1030 14053BFP
BURST LEVEL
BURST ANGLE
WHITE BALANCE
RED LEVEL
LUMA AMPLITUDE
CHROMA LEVEL
TINT
MULTI 4.43MHz
PIN P 4.43MHz
SYNC SEPA.
BURST GATE PULSE
2nd AMP
1st AMP
ACC DET
ID KILLER DET
R-Y DEMOD.
B-Y DEMOD.
COMP
ID PULSE
APC DET
4fsc VCXO
1/4
FB CLAMP
BFP MIX
MOD
SC GATE
SC LIMIT
GATE PULSE GEN.
SYNC ADD
Y OP AMP
BLACK CLIP
SET UP
MIX AMP
BFP COMP.
fsc VCO
1st BPA
2nd BPA
PAL
SUB BPA
Y/C MIX
SW CONT.
PHASE SHIFT
KILLER DET
H.SYNC SEPA
V.SYNC SEPA
TIMING
BGP GEN.
H. AFC
32 fH VCO
1/32
Q1005 2SC2412KR
Q1008 2SC2412KR
Q1040 DTC124K
Q1048 DTA144EK
Q1047 DTC144K
Q1014 2SA1037KR
Q1016 2SA1037KR
Q1012 2SA1037KR
Q1015 2SA1037KR
Q1017 2SA1037KR
Q1018 2SC2412KR
Q1019 2SC2412KR
Q1020 2SC2412KR
Q1021 2SC2412KR
Q1022 2SC2412KR
Q1003 2SA1037KR
Q1004 2SA1037KR
Q1006 2SA1037KR
Q1029 DTA124K
Q1030 DTC124K
Q1055 DTA144EK
Q1052 DTA144EK
Q1036 2SC2412KR
Q1025 2SC2412KR
Q1041 2SC2412KR
Q1044 DTC144K
Q1045 DTC144K
Q1046 DTC124K
Q1043 DTC124K
Q1042 DTC124K
D1005, D1006 DAN202K x2
1Y SRCE 2
2Y SRCE 1
3Y RHD
4Y ADDUH
5Y BFP
6Y BLK
7Y 12V
8Y 5V
9Y GND
To CONTROL 1Y—9Y
1Z GND
2Z Y
3Z B-Y
4Z R-Y
5Z Y
To ENCODE/ DECODE/ MEMORY 1Z—7Z
6Z R/B
7Z CMPX
14Y VDR
15Y HDR
16Y P IN P
17Y SDET
18Y SIECTL
To CONTROL 14Y—18Y
NOTE: DTC124
NOTE: DTC144K
NOTE: DTA144
NOTE: DTA124K
EE VIDEO SIGNAL
PB VIDEO SIGNAL
PB/EE -Y
PB/EE B-Y
PB/EE R-Y
PB/EE C
WAVEFORMS NO

5	6	7	8	9	10	11	12

ENCODE/DECODE/MEMORY

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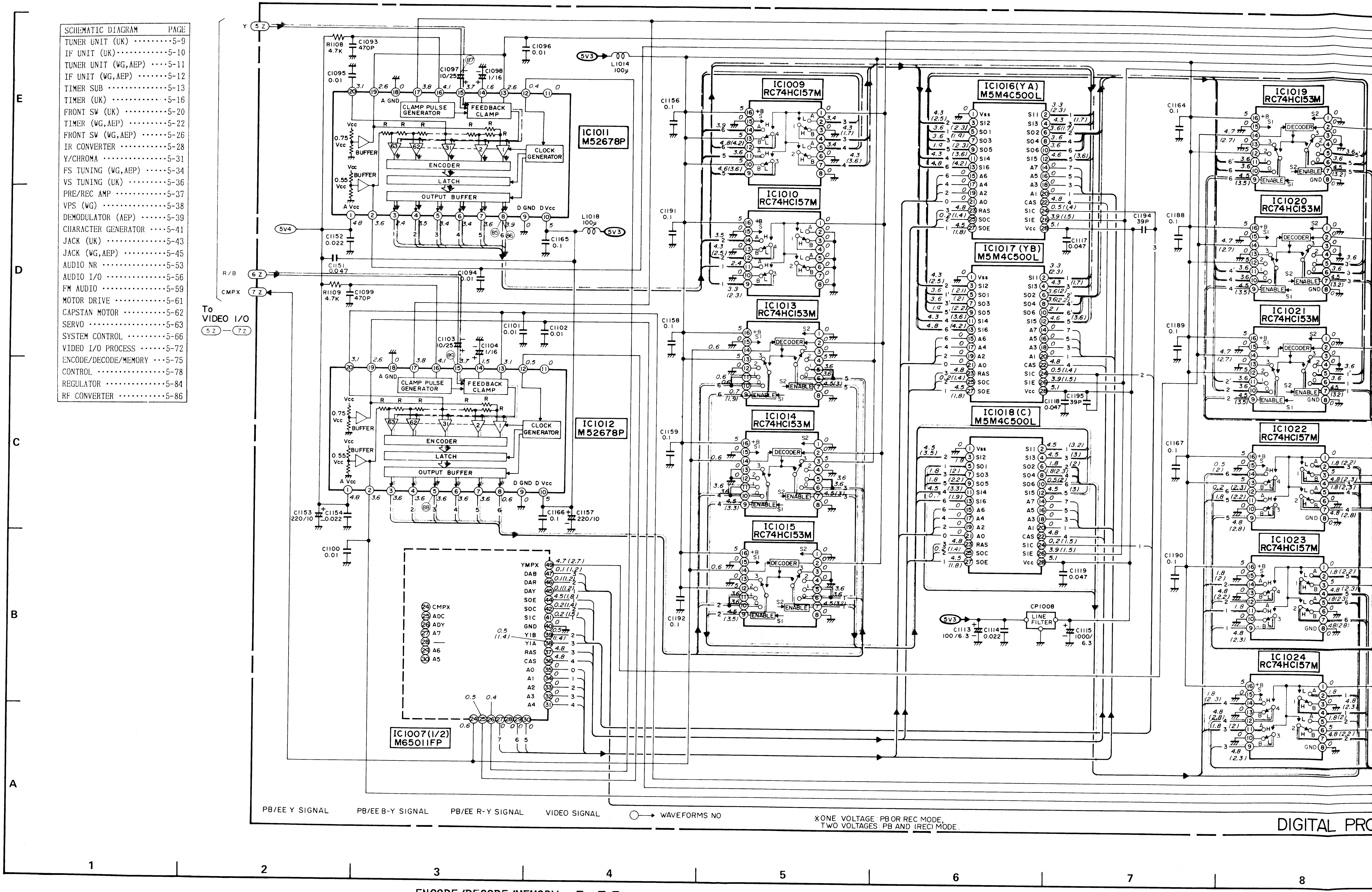
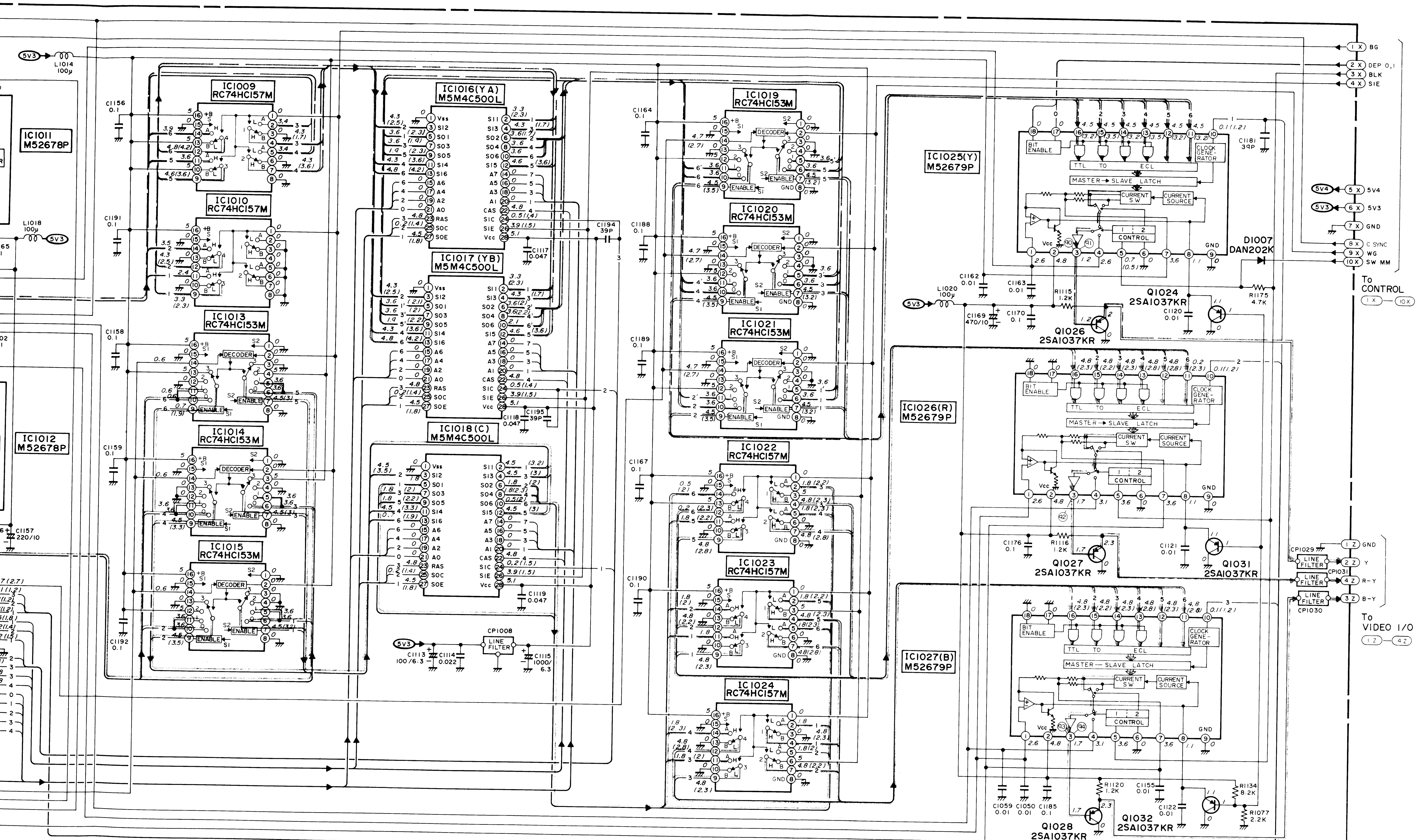


E
D
C
B
A
1
2
3
4
5
6
7
8
To VIDEO I/O
5Z — 7Z
Y
R/B
CMPX
5V4
5V3
IC1011 M52678P
IC1012 M52678P
CLAMP PULSE GENERATOR
FEEDBACK CLAMP
CLOCK GENERATOR
ENCODER
LATCH
OUTPUT BUFFER
BUFFER
A GND
D GND
D Vcc
A Vcc
Vcc
IC1007(1/2) M65011FP
YMPX
DAB
DAR
DAY
SOE
SOC
SIC
GND
Y1B
Y1A
RAS
CAS
A0
A1
A2
A3
A4
CMPX
ADC
ADY
A7
A6
A5
IC1009 RC74HC157M
IC1010 RC74HC157M
IC1013 RC74HC153M
IC1014 RC74HC153M
IC1015 RC74HC153M
DECODER
ENABLE
IC1016(YA) M5M4C500L
IC1017(YB) M5M4C500L
IC1018(C) M5M4C500L
CP1008
LINE FILTER
IC1019 RC74HC153M
IC1020 RC74HC153M
IC1021 RC74HC153M
IC1022 RC74HC157M
IC1023 RC74HC157M
IC1024 RC74HC157M
R1108 4.7K
C1093 470P
C1095 0.01
C1096 0.01
C1097 10/25
C1098 1/16
L1014 100µ
L1018 100µ
C1152 0.022
C1151 0.047
C1165 0.1
R1109 4.7K
C1099 470P
C1094 0.01
C1101 0.01
C1102 0.01
C1103 10/25
C1104 1/16
C1153 220/10
C1154 0.022
C1166 0.1
C1157 220/10
C1100 0.01
C1156 0.1
C1191 0.1
C1158 0.1
C1159 0.1
C1192 0.1
C1117 0.047
C1118 0.047
C1119 0.047
C1194 39P
C1195 39P
C1113 100/6.3
C1114 0.022
C1115 1000/6.3
C1164 0.1
C1188 0.1
C1189 0.1
C1167 0.1
C1190 0.1
PB/EE Y SIGNAL
PB/EE B-Y SIGNAL
PB/EE R-Y SIGNAL
VIDEO SIGNAL
WAVEFORMS NO
X ONE VOLTAGE PB OR REC MODE.
TWO VOLTAGES PB AND (REC) MODE.
DIGITAL PRO

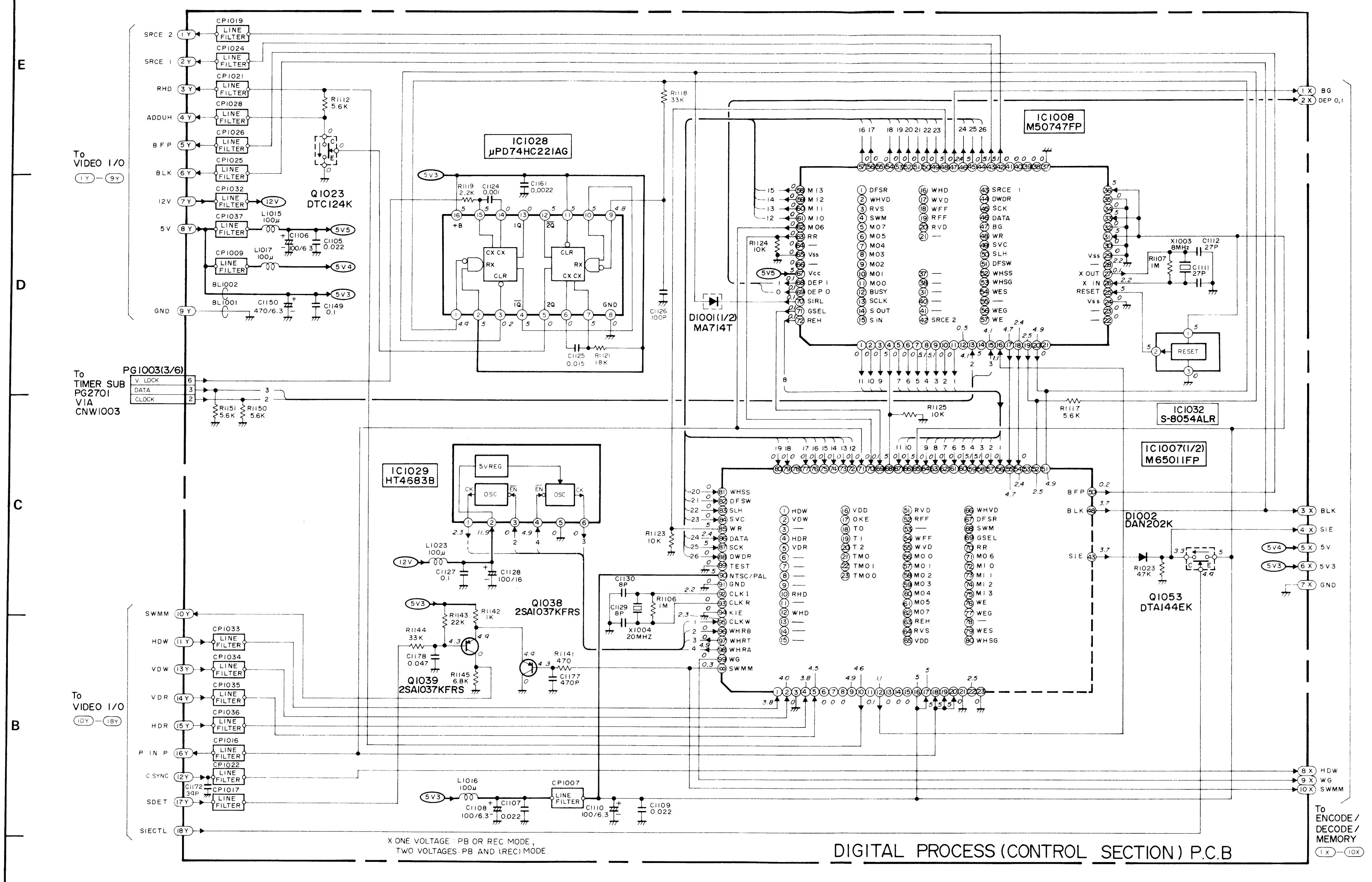

IC1009 RC74HC157M
IC1010 RC74HC157M
IC1011 M52678P
IC1012 M52678P
IC1013 RC74HC153M
IC1014 RC74HC153M
IC1015 RC74HC153M
IC1016(YA) M5M4C500L
IC1017 (YB) M5M4C500L
IC1018 (C) M5M4C500L
IC1019 RC74HC153M
IC1020 RC74HC153M
IC1021 RC74HC153M
IC1022 RC74HC157M
IC1023 RC74HC157M
IC1024 RC74HC157M
IC1025(Y) M52679P
IC1026(R) M52679P
IC1027(B) M52679P
Q1024 2SA1037KR
Q1026 2SA1037KR
Q1027 2SA1037KR
Q1028 2SA1037KR
Q1031 2SA1037KR
Q1032 2SA1037KR
D1007 DAN202K
CP1008 LINE FILTER
CP1029
CP1030
CP1031
L1014 100µ
L1018 100µ
L1020 100µ
5V3
5V4
DECODER
ENABLE
BIT ENABLE
CLOCK GENE-RATOR
TTL TO ECL
MASTER → SLAVE LATCH
CURRENT SW
CURRENT SOURCE
CONTROL
LINE FILTER
1X BG
2X DEP 0,1
3X BLK
4X SIE
5X 5V4
6X 5V3
7X GND
8X C SYNC
9X WG
10X SW MM
To CONTROL (1X)—(10X)
1Z GND
2Z Y
4Z R-Y
3Z B-Y
To VIDEO I/O (1Z)—(4Z)
O SIGNAL

○→ WAVEFORMS NO

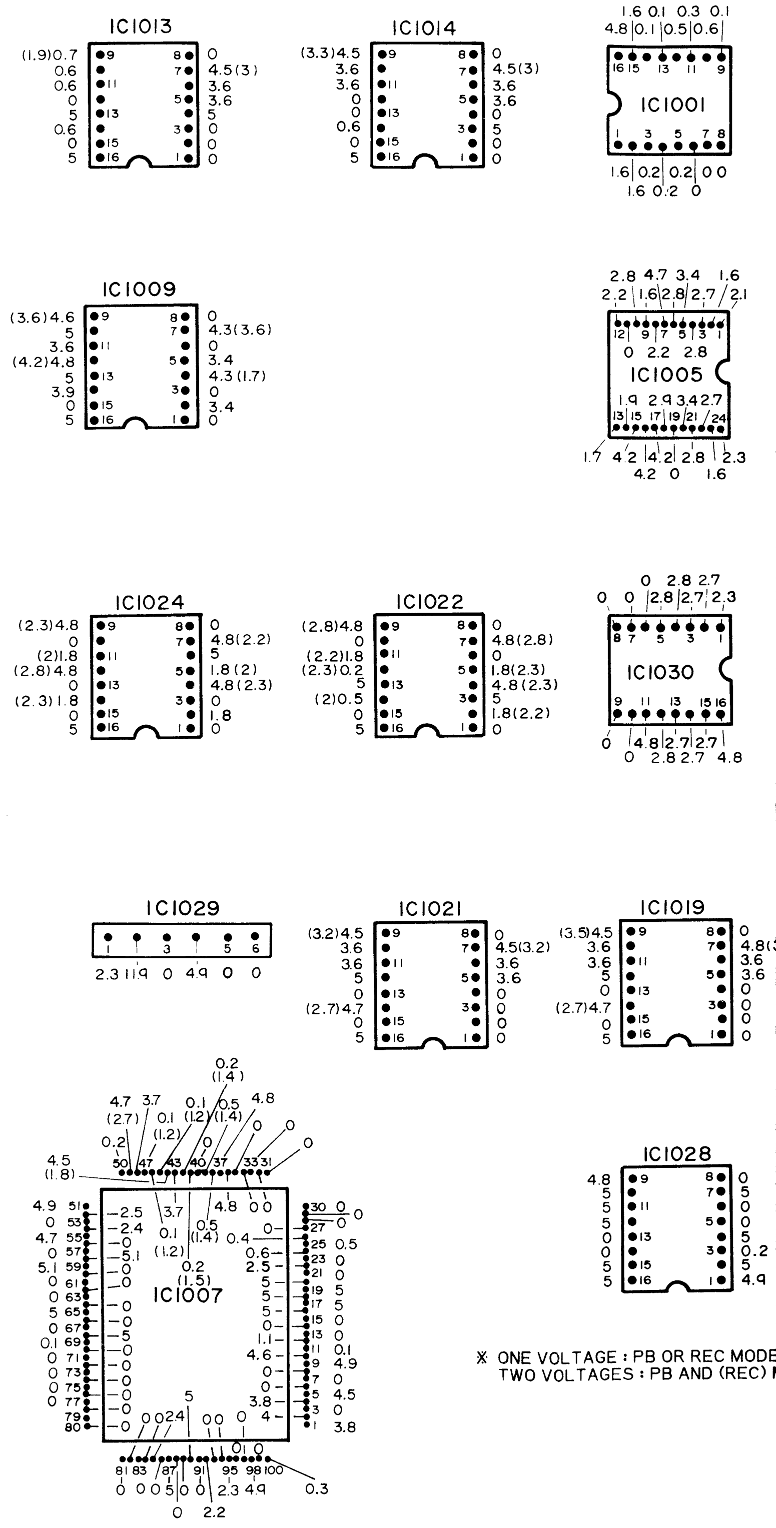
XONE VOLTAGE: PB OR REC MODE,
TWO VOLTAGES: PB AND (REC) MODE.

DIGITAL PROCESS (ENCODE/DECODE/MEMORY SECTION) P.C.B

4 5 6 7 8 9 10 11



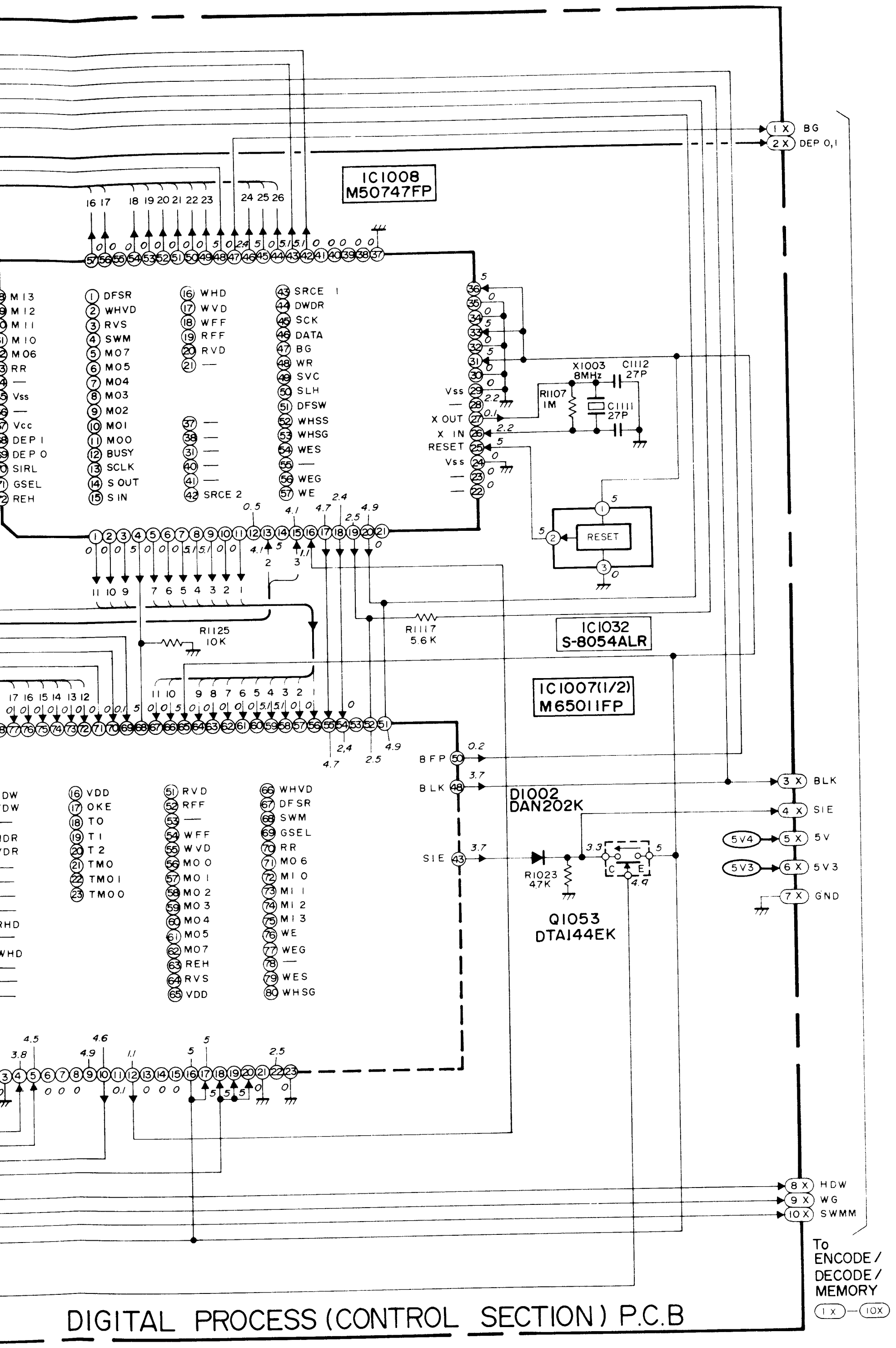
DIGITAL PROCESS (CONTROL SECTION) P.C.B
To VIDEO I/O (1Y)-(9Y)
To TIMER SUB PG2701 VIA CNW1003
To VIDEO I/O (10Y)-(18Y)
To ENCODE/ DECODE/ MEMORY (1X)-(10X)
IC1028 μPD74HC221AG
IC1029 HT4683B
IC1008 M50747FP
IC1007(1/2) M65011FP
IC1032 S-8054ALR
Q1023 DTC124K
Q1038 2SA1037KFRS
Q1039 2SA1037KFRS
Q1053 DTA144EK
D1001(1/2) MA714T
D1002 DAN202K
X1003 8MHz
X1004 20MHZ
PG1003(3/6)
SRCE 2
SRCE 1
RHD
ADDUH
BFP
BLK
12V
5V
GND
SWMM
HDW
VDW
VDR
HDR
P IN P
C SYNC
SDET
SIECTL
BG
DEP 0,1
SIE
WG
V LOCK
DATA
CLOCK
X ONE VOLTAGE : PB OR REC MODE, TWO VOLTAGES : PB AND (REC) MODE
E
D
C
B
A
1
2
3
4
5
6



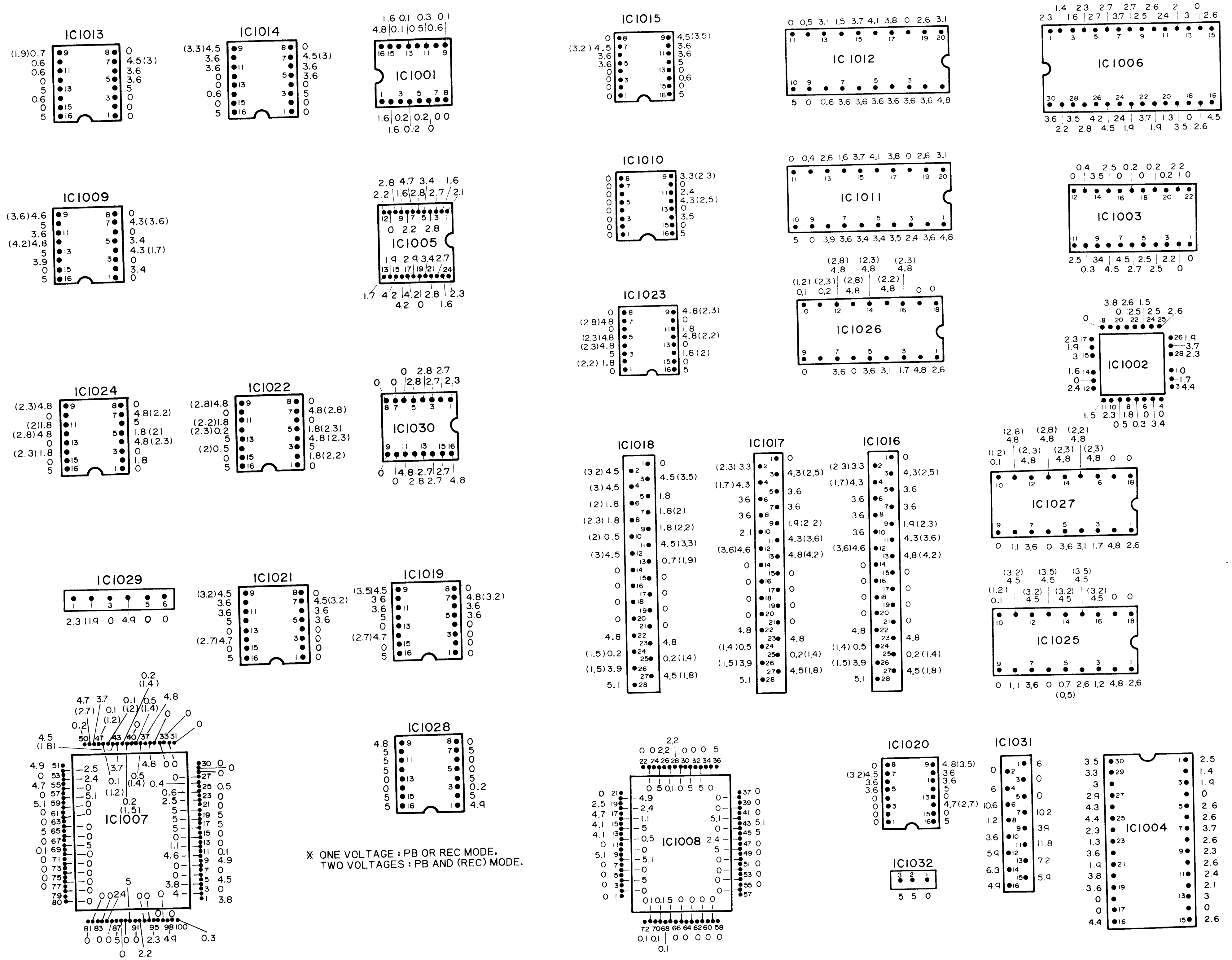
IC1013
IC1014
IC1001
IC1009
IC1005
IC1024
IC1022
IC1030
IC1029
IC1021
IC1019
IC1007
IC1028
7
8

X ONE VOLTAGE : PB OR REC MODE
TWO VOLTAGES : PB AND (REC)

DIGITAL PROCESS CIRCUIT BOARD



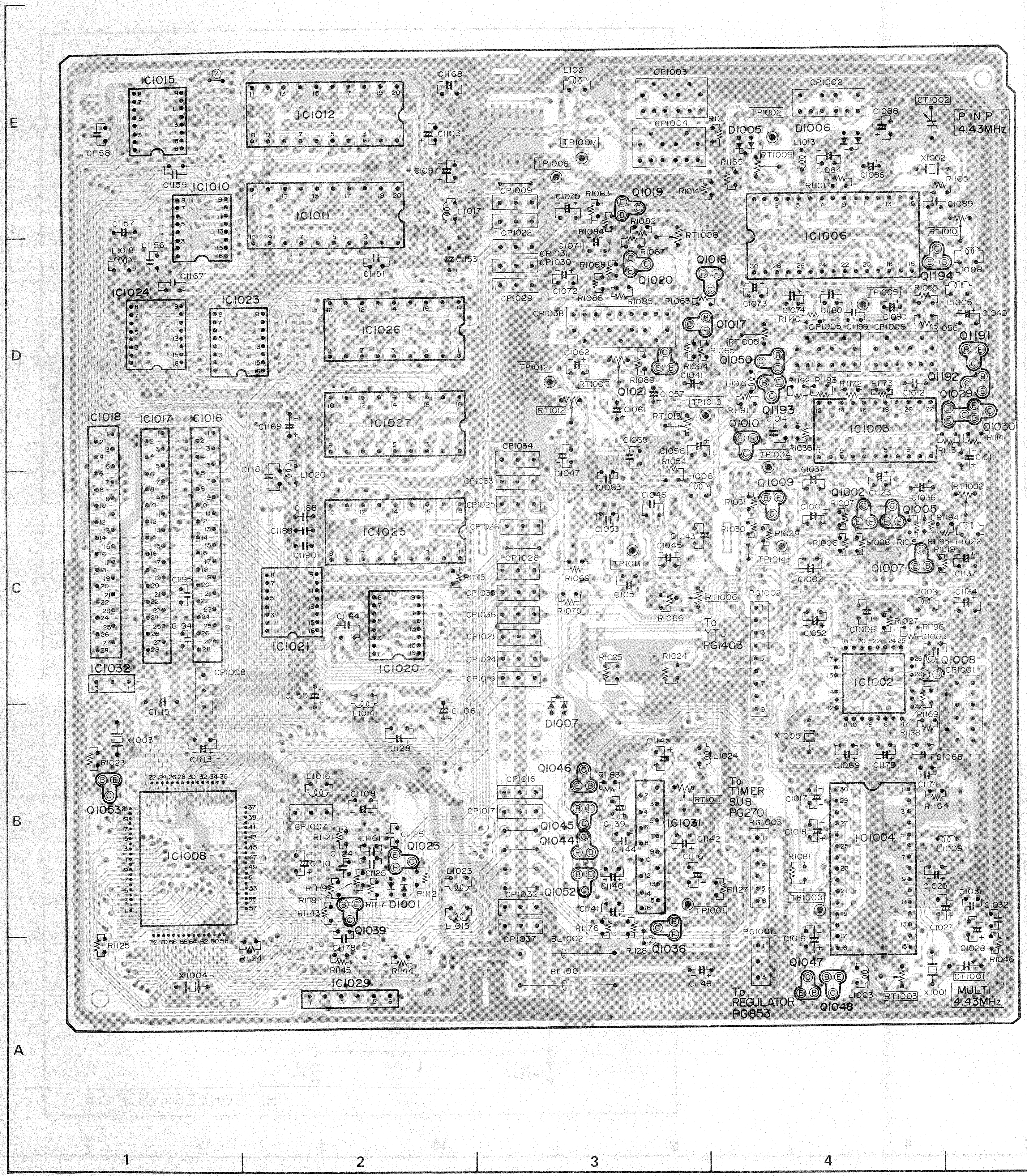
IC1008
M50747FP
IC1007(1/2)
M65011FP
IC1032
S-8054ALR
X1003
8MHz
C1112
27P
C1111
27P
R1107
1M
RESET
R1125
10K
R1117
5.6K
D1002
DAN202K
R1023
47K
Q1053
DTA144EK
1X BG
2X DEP 0,1
3X BLK
4X SIE
5X 5V
6X 5V3
7X GND
5V4
5V3
8X HDW
9X WG
10X SWMM
To
ENCODE/
DECODE/
MEMORY
1X—10X
Vss
X OUT
X IN
RESET
BFP
BLK
SIE
DIGITAL PROCESS (CONTROL SECTION) P.C.B



IC1013
IC1014
IC1001
IC1015
IC 1012
IC1006
IC1009
IC1005
IC1010
IC1011
IC1003
IC1023
IC1026
IC1002
IC1024
IC1022
IC1030
IC1018
IC1017
IC1016
IC1027
IC1029
IC1021
IC1019
IC1025
IC1028
IC1007
IC1008
IC1020
IC1031
IC1004
IC1032

※ ONE VOLTAGE : PB OR REC MODE.
TWO VOLTAGES : PB AND (REC) MODE.

※ ONE VOLTAGE : PB OR REC MODE.
TWO VOLTAGES : PB AND (REC) MODE.


E
D
C
B
A
1
2
3
4
5
P IN P 4.43MHz
MULTI 4.43MHz
To YTJ PG1403
To TIMER SUB PG2701
To REGULATOR PG853
556108
IC1001
IC1002
IC1003
IC1004
IC1006
IC1008
IC1010
IC1011
IC1012
IC1015
IC1016
IC1017
IC1018
IC1020
IC1021
IC1023
IC1024
IC1025
IC1026
IC1027
IC1029
IC1031
IC1032

RT1002
SYNC POSITION

RT1003
T IN T

RT1005
LUMA AMPLITUDE

RT1006
WHITE BALANCE

R1007
WHITE BALANCE

RT1008
RED LEVEL

RT1009
CHROMA LEVEL

RT1010
T IN T

RT1011
AGC LEVEL
MAIN SCREEN BRIGHTNESS

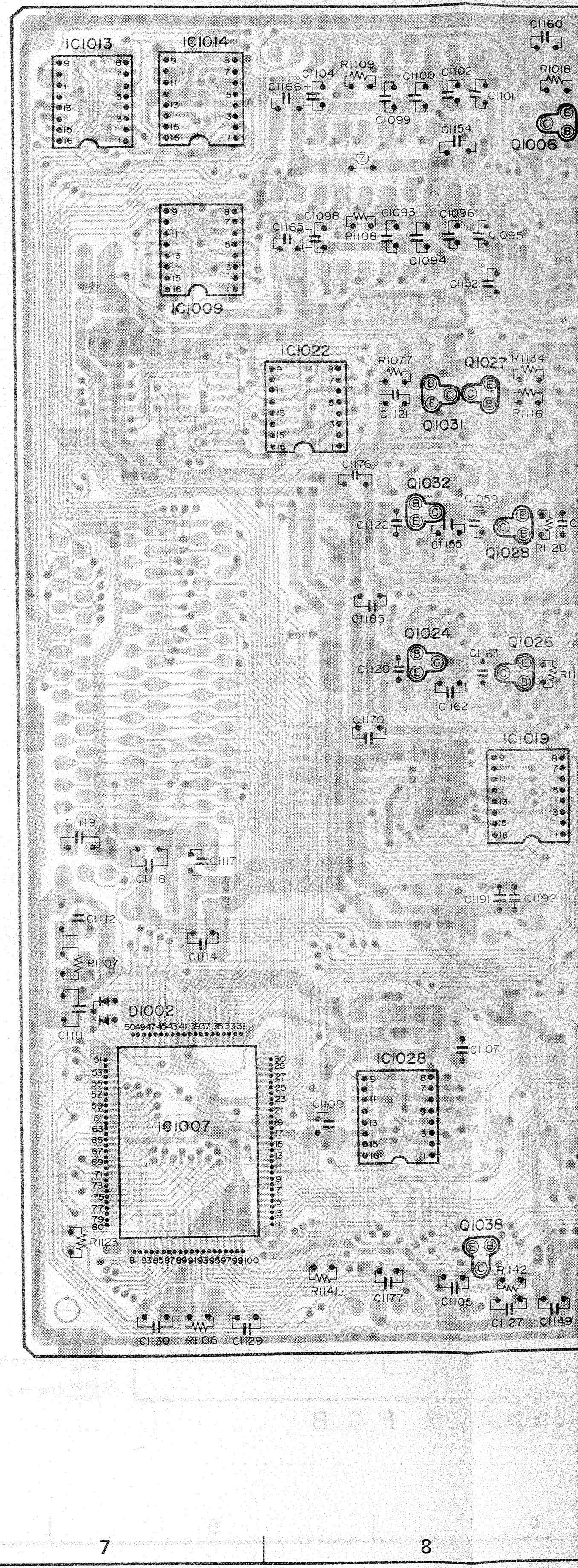
RT1012
BURST ANGLE
SUB SCREEN BRIGHTNESS

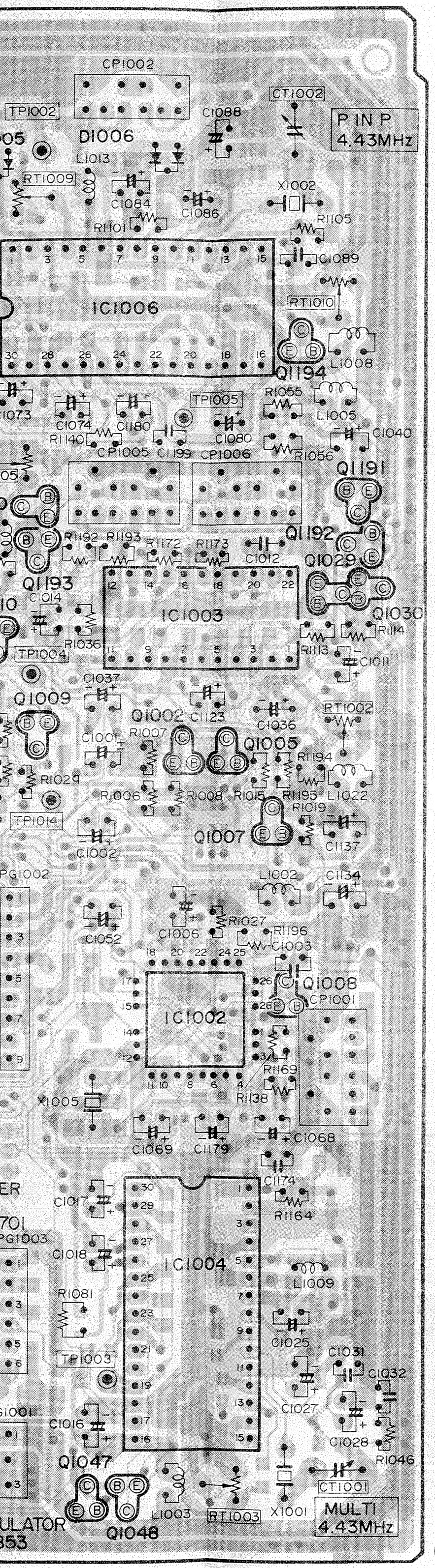
RT1013
BURST LEVEL

▨	: SOLDER SIDE
▨	: PARTS SIDE
●	: THROUGH HOLE

※ NOTE : MARK "ⓩ" IS LEADLESS (CHIP) JUMPER.

DIGITAL PROCESS P.C.B
(COMPONENTS SIDE)


6
7
8
IC1013
IC1014
IC1009
IC1022
IC1019
IC1028
IC1007
D1002


CP1002
D1006
CT1002
PINP 4.43MHz
IC1006
IC1003
IC1002
IC1004
Q1191
Q1192
Q1193
Q1194
Q1030
Q1009
Q1002
Q1005
Q1007
Q1008
Q1047
Q1048
X1002
X1005
X1001
RT1003
MULTI 4.43MHz

DIGITAL PROCESS P.C.B
(COMPONENTS SIDE)

RT1002
SYNC POSITION

RT1003
T IN T

RT1005
LUMA AMPLITUDE

RT1006
WHITE BALANCE

R1007
WHITE BALANCE

RT1008
RED LEVEL

RT1009
CHROMA LEVEL

RT1010
T IN T

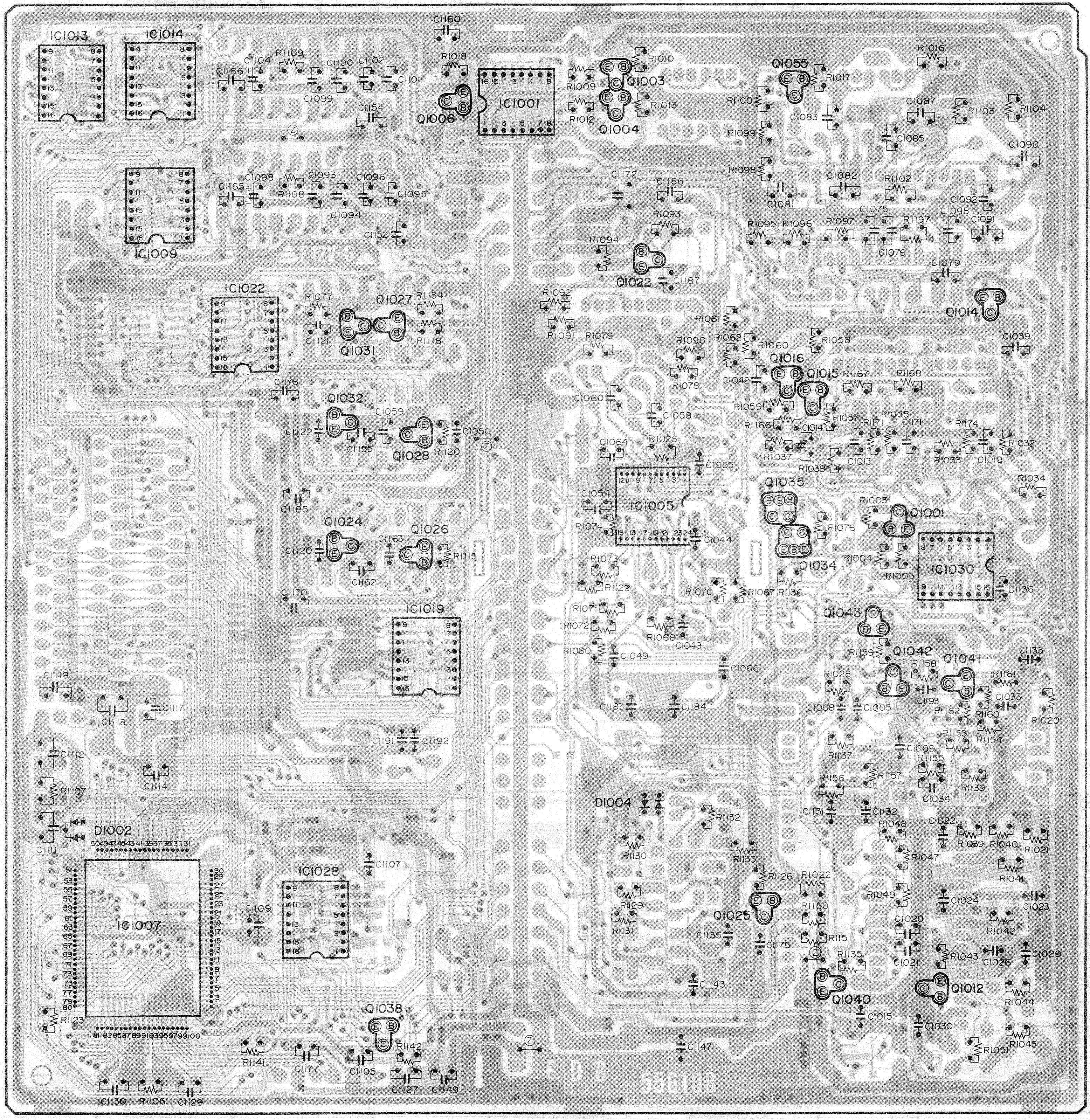
RT1011
AGC LEVEL
MAIN SCREEN BRIGHTNESS

RT1012
BURST ANGLE
SUB SCREEN BRIGHTNESS

RT1013
BURST LEVEL

▨	: SOLDER SIDE
▨	: PARTS SIDE
•	: THROUGH HOLE

※ NOTE : MARK "Ⓩ" IS LEADLESS (CHIP) JUMPER.


IC1013
IC1014
IC1001
IC1009
IC1022
IC1005
IC1030
IC1019
IC1007
IC1028
D1002
D1004
Q1003
Q1004
Q1006
Q1055
Q1022
Q1014
Q1027
Q1031
Q1016
Q1015
Q1032
Q1028
Q1035
Q1001
Q1024
Q1026
Q1034
Q1043
Q1042
Q1041
Q1025
Q1040
Q1012
Q1038
F12V-0
FDG
556108

DIGITAL PROCESS P.C.B
(SOLDER SIDE)

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IF UNIT (WG,AEP)	5-12
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TIMER (UK)	5-16
FRONT SW (UK)	5-20
TIMER (WG,AEP)	5-22
FRONT SW (WG,AEP)	5-26
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CAPSTAN MOTOR	5-62
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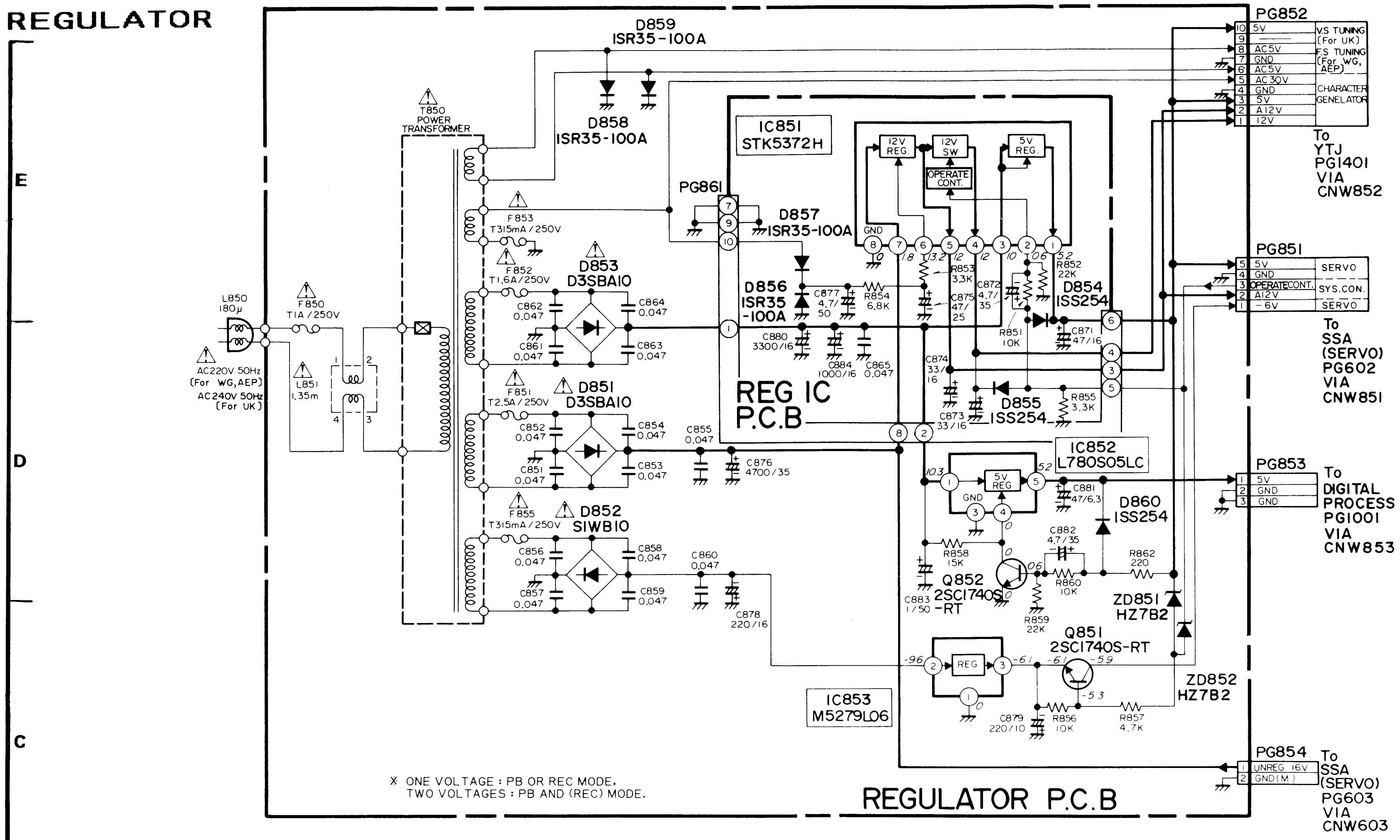
REGULATOR	5-84
RF CONVERTER	5-86

REGULATOR


D859
ISR35-100A
D858
ISR35-100A
T850
POWER TRANSFORMER
PG852
5V
AC5V
GND
AC5V
AC30V
GND
5V
A12V
12V
VS TUNING (For UK)
FS TUNING (For WG, AEP)
CHARACTER GENELATOR
To YTJ PG1401 VIA CNW852
IC851
STK5372H
12V REG
12V SW
OPERATE CONT.
5V REG
GND
PG861
D857
ISR35-100A
F853
T315mA/250V
F852
T1.6A/250V
D853
D3SBA10
C862 0.047
C861 0.047
C864 0.047
C863 0.047
D856
ISR35-100A
C877 4.7/50
R854 6.8K
R853 3.3K
C875 47/25
C872 4.7/35
R852 22K
D854
ISS254
R851 10K
C871 47/16
PG851
SERVO
SYS.CON.
OPERATE CONT.
-6V
To SSA (SERVO) PG602 VIA CNW851
L850 180μ
F850 T1A/250V
AC220V 50Hz (For WG,AEP)
AC240V 50Hz (For UK)
L851 1.35m
C880 3300/16
C884 1000/16
C865 0.047
C874 33/16
C873 33/16
D855
ISS254
R855 3.3K
REG IC P.C.B
F851
T2.5A/250V
D851
D3SBA10
C852 0.047
C851 0.047
C854 0.047
C853 0.047
C855 0.047
C876 4700/35
IC852
L780S05LC
5V REG
C881 47/6.3
D860
ISS254
PG853
To DIGITAL PROCESS PG1001 VIA CNW853
F855
T315mA/250V
D852
SIWB10
C856 0.047
C857 0.047
C858 0.047
C859 0.047
C860 0.047
C878 220/16
R858 15K
C882 47/35
R862 220
Q852
2SC1740S-RT
C883 1/50
R860 10K
R859 22K
ZD851
HZ7B2
Q851
2SC1740S-RT
IC853
M5279L06
REG
ZD852
HZ7B2
C879 220/10
R856 10K
R857 4.7K
PG854
UNREG 16V
GND(M)
To SSA (SERVO) PG603 VIA CNW603
REGULATOR P.C.B

※ ONE VOLTAGE : PB OR REC MODE.
TWO VOLTAGES : PB AND (REC) MODE.

SCHEMATIC DIAGRAM	PAGE
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IF UNIT (UK)	5-10
TUNER UNIT (WG,AEP)	5-11
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TIMER SUB	5-13
TIMER (UK)	5-16
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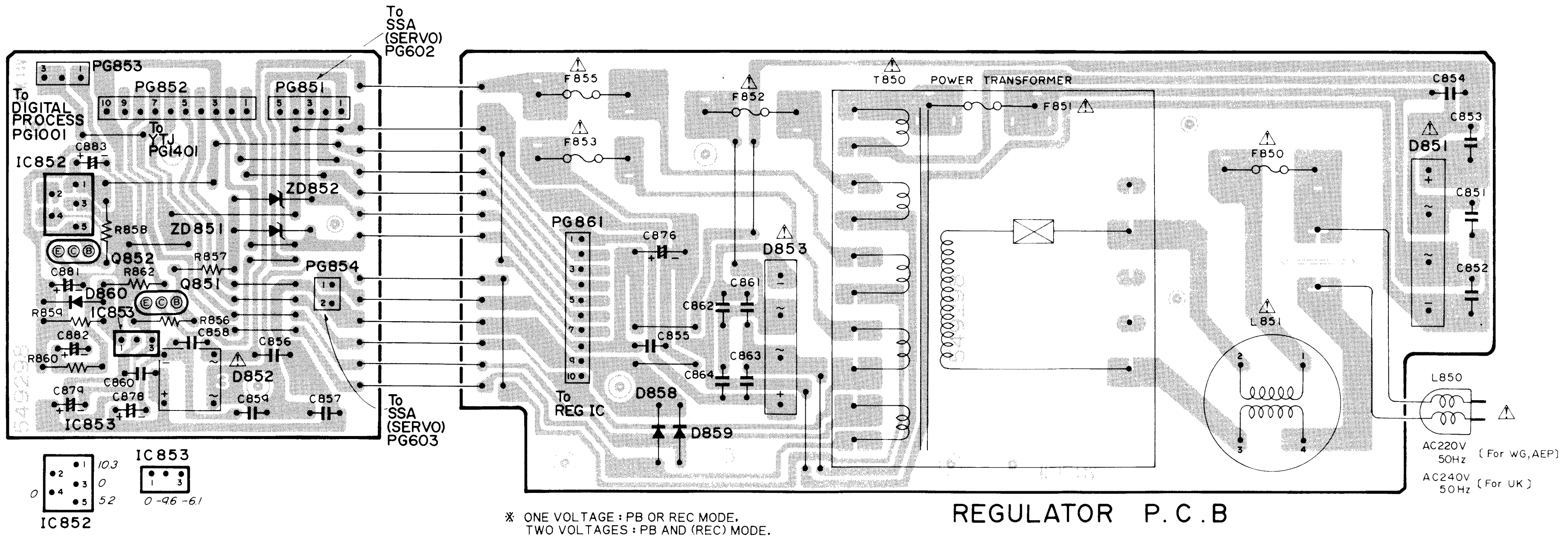
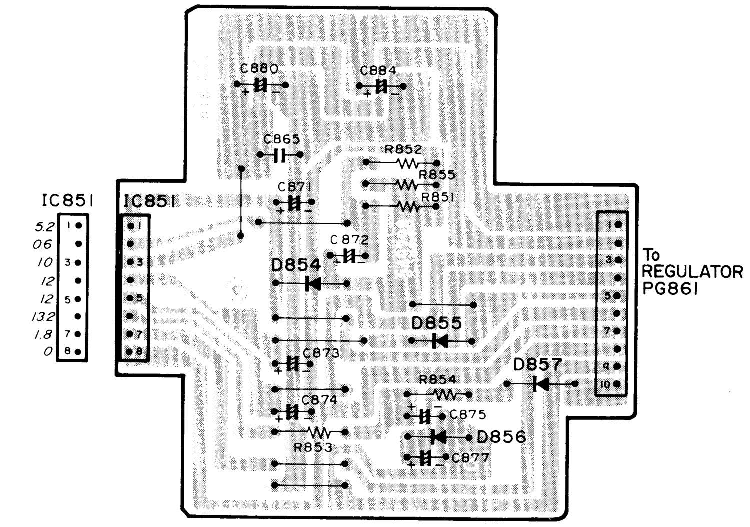
ENCODE/DECODE/MEMORY	5-75
CONTROL	5-78
REGULATOR	5-84
RF CONVERTER	5-86

REGULATOR IC CIRCUIT BOARD


PG853
To DIGITAL PROCESS PG1001
PG852
To YTJ PG1401
PG851
To SSA (SERVO) PG602
IC852
C883
R858
ZD852
ZD851
Q852
R857
R862
Q851
PG854
C881
D860
IC853
R859
R856
C858
R860
C882
C856
D852
C880
C879
C878
C859
C857
IC853
To SSA (SERVO) PG603
F855
F852
F853
T850
POWER TRANSFORMER
F851
C854
C853
D851
C851
C852
F850
PG861
C876
D853
C861
C862
C855
C863
C864
To REG IC
D858
D859
L851
L850
AC220V 50Hz (For WG,AEP)
AC240V 50Hz (For UK)
IC852
103
0
52
0 -96 -61

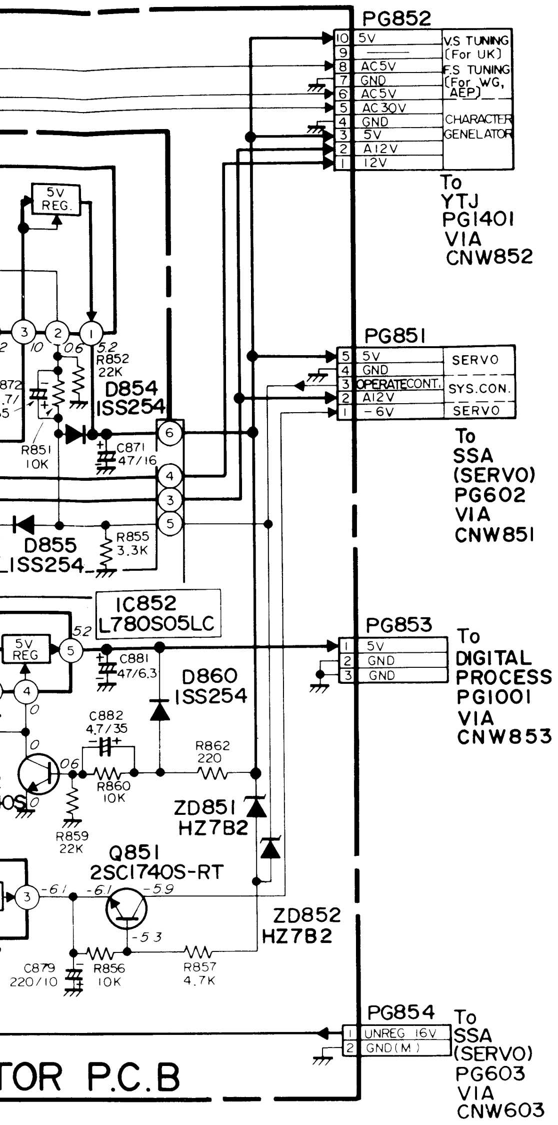
REGULATOR P.C.B

※ ONE VOLTAGE : PB OR REC MODE.
TWO VOLTAGES : PB AND (REC) MODE.


IC851
52
06
10
12
12
132
18
0
C880
C884
C865
R852
R855
R851
C871
C872
D854
D855
C873
D857
R854
C874
C875
D856
R853
C877
To REGULATOR PG861

※ ONE VOLTAGE : PB OR REC MODE.
TWO VOLTAGES : PB AND (REC) MODE.

REG IC P.C.B


PG852
5V
AC5V
GND
AC5V
AC30V
GND
5V
A12V
12V
VS TUNING (For UK)
FS TUNING (For WG, AEP)
CHARACTER GENELATOR
To YTJ PG1401 VIA CNW852
5V REG.
PG851
5V
GND
OPERATE CONT.
A12V
-6V
SERVO
SYS.CON.
SERVO
To SSA (SERVO) PG602 VIA CNW851
R852 22K
D854 ISS254
R851 10K
C871 47/16
D855 ISS254
R855 3.3K
IC852 L780S05LC
5V REG
C881 47/6.3
D860 ISS254
PG853
5V
GND
GND
To DIGITAL PROCESS PG1001 VIA CNW853
C882 4.7/35
R862 220
R860 10K
ZD851 HZ7B2
R859 22K
Q851 2SC1740S-RT
ZD852 HZ7B2
C879 220/10
R856 10K
R857 4.7K
PG854
UNREG 16V
GND(M)
To SSA (SERVO) PG603 VIA CNW603

TOR P.C.B

SCHEMATIC DIAGRAM	PAGE
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TIMER SUB	5-13
TIMER (UK)	5-16
FRONT SW (UK)	5-20
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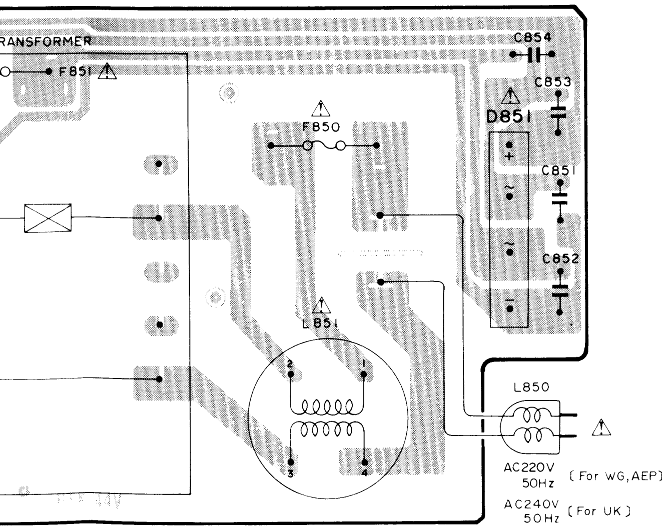
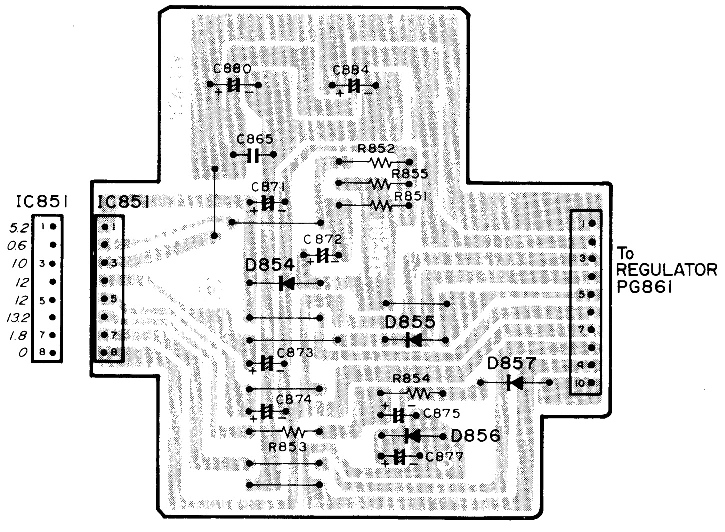
CONTROL	5-78
REGULATOR	5-84
RF CONVERTER	5-86


TRANSFORMER
F851
C854
C853
D851
F850
C851
C852
L851
L850
AC220V 50Hz [For WG,AEP]
AC240V 50Hz [For UK]

GULATOR P.C.B

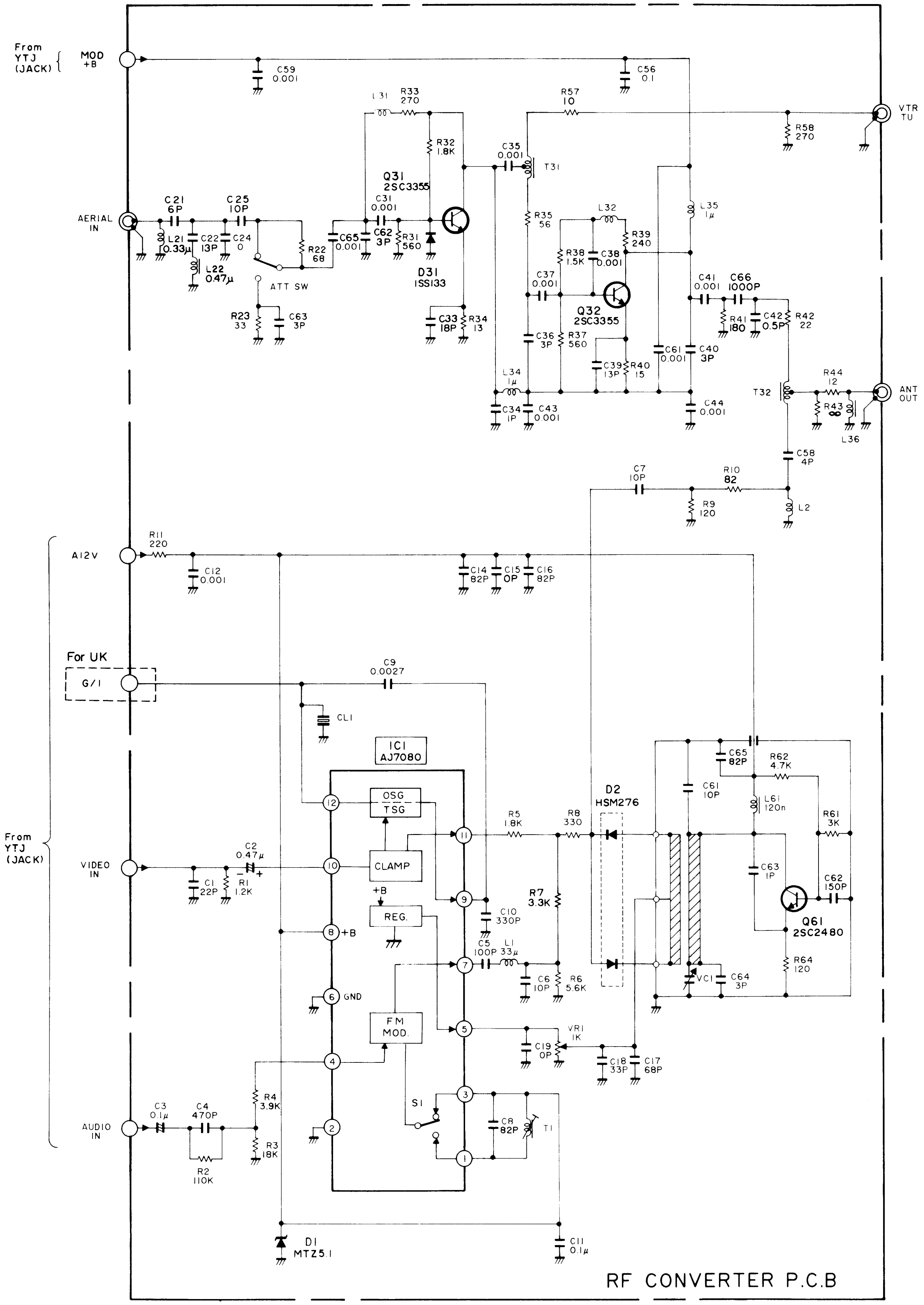
REGULATOR IC CIRCUIT BOARD


IC851
52
06
10
12
12
132
1.8
0
IC851
C880
C884
C865
R852
R855
C871
R851
C872
D854
D855
C873
D857
R854
C874
C875
D856
R853
C877
To REGULATOR PG861

※ ONE VOLTAGE : PB OR REC MODE.
TWO VOLTAGES : PB AND (REC) MODE.

REG IC P.C.B

RF CONVERTER

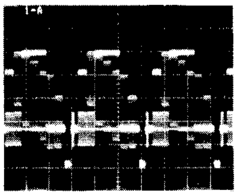

From YTJ (JACK)
MOD +B
C59 0.001
C56 0.1
L31
R33 270
R57 10
VTR TU
R58 270
R32 1.8K
C35 0.001
T31
Q31 2SC3355
C21 6P
C25 10P
C31 0.001
AERIAL IN
L21 0.33μ
C22 13P
C24 0
L22 0.47μ
ATT SW
R22 68
C65 0.001
C62 3P
R31 560
D31 ISS133
R35 56
L32
R39 240
L35 1μ
R38 1.5K
C38 0.001
C37 0.001
Q32 2SC3355
C41 0.001
C66 1000P
R41 180
C42 0.5P
R42 22
R23 33
C63 3P
C33 18P
R34 13
C36 3P
R37 560
C39 13P
R40 15
C61 0.001
C40 3P
L34 1μ
C34 1P
C43 0.001
C44 0.001
T32
R44 12
R43 ∞
ANT OUT
L36
C58 4P
C7 10P
R10 82
R9 120
L2
A12V
R11 220
C12 0.001
C14 82P
C15 0P
C16 82P
For UK
G/1
C9 0.0027
CL1
IC1 AJ7080
OSG
TSG
CLAMP
REG.
FM MOD
+B
GND
S1
D2 HSM276
C65 82P
R62 4.7K
C61 10P
L61 120n
R61 3K
R5 1.8K
R8 330
From YTJ (JACK)
VIDEO IN
C2 0.47μ
C1 22P
R1 1.2K
R7 3.3K
C10 330P
C5 100P
L1 33μ
C6 10P
R6 5.6K
C63 1P
C62 150P
Q61 2SC2480
R64 120
VC1
C64 3P
VR1 1K
C19 0P
C18 33P
C17 68P
R4 3.9K
AUDIO IN
C3 0.1μ
C4 470P
R2 110K
R3 18K
C8 82P
T1
D1 MTZ5.1
C11 0.1μ

RF CONVERTER P.C.B

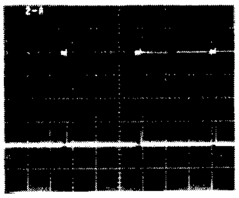
WAVEFORMS

Y/CHROMA

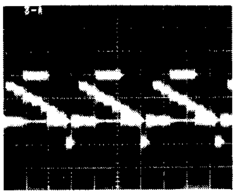
1 IC201-1
0.2V/20.0μ sec.cm
REC



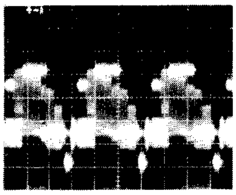
2 IC201-3
1V/20.0μ sec.cm
REC/PLAY



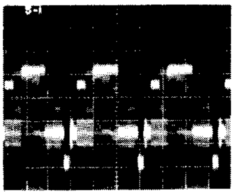
3 IC201-7
0.1V/20.0μ sec.cm
REC/PLAY



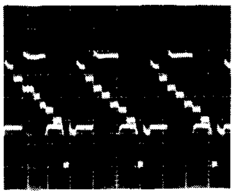
4 IC201-8
50mV/20.0μ sec.cm
REC/PLAY



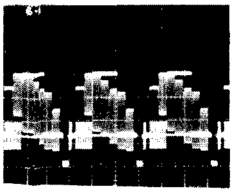
5 IC201-9
50mV/20.0μ sec.cm
REC



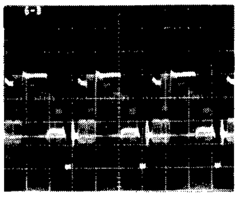
6 IC201-9
0.2V/20.0μ sec.cm
PLAY



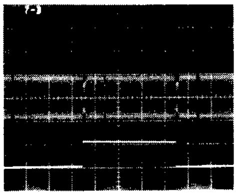
7 IC201-11
0.5V/20.0μ sec.cm
REC



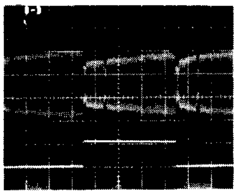
8 IC201-11
0.5V/20.0μ sec.cm
PLAY



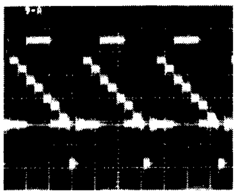
9 IC201-19
0.2V/5.0msec.cm
PLAY



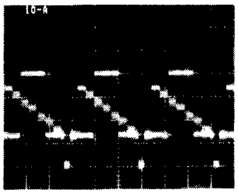
10 IC201-20
0.2V/5.0msec.cm
PLAY



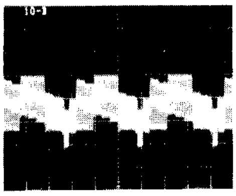
11 IC201-24
0.1V/20.0μ sec.cm
REC/PLAY



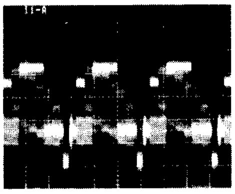
12 IC201-26
50mV/20.0μ sec.cm
REC



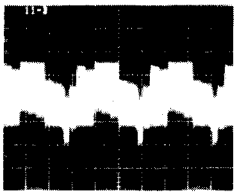
13 IC201-26
0.1V/20.0μ sec.cm
PLAY



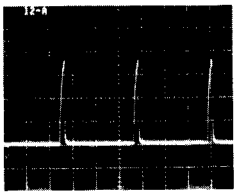
14 IC201-27
50mV/20.0μ sec.cm
REC



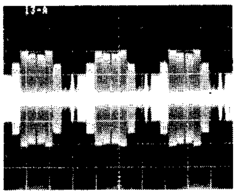
15 IC201-27
0.1V/20.0μ sec.cm
PLAY



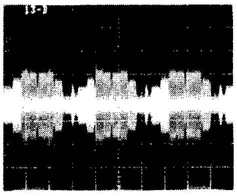
16 IC301-1
1V/20.0μ sec.cm
REC/PLAY



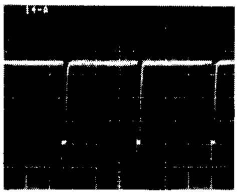
17 IC301-8
0.1V/20.0μ sec.cm
REC



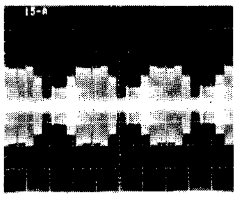
18 IC301-8
0.1V/20.0μ sec.cm
PLAY



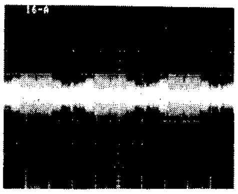
19 IC301-9
1V/20.0μ sec.cm
REC/PLAY



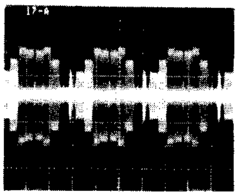
20 IC301-11
0.2V/20.0μ sec.cm
REC/PLAY



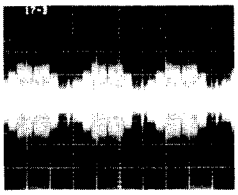
21 IC301-12
50mV/20.0μ sec.cm
PLAY



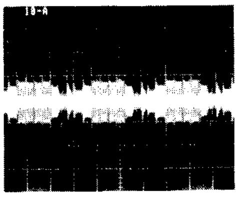
22 IC301-14
0.1V/20.0μ sec.cm
REC



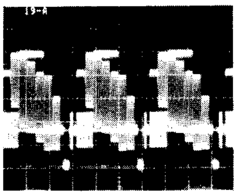
23 IC301-14
50mV/20.0μ sec.cm
PLAY



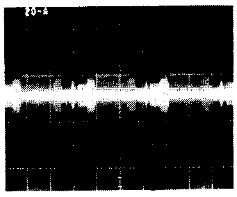
24 IC301-16
0.1V/20.0μ sec.cm
REC/PLAY



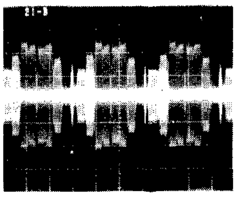
25 IC301-18
0.2V/20.0μ sec.cm
REC



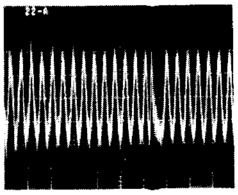
26 IC301-20
50mV/20.0μ sec.cm
REC/PLAY



27 IC301-22
0.1V/20.0μ sec.cm
PLAY

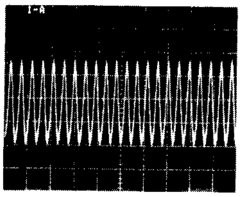


28 IC301-27
0.1V/500nsec.cm
REC/PLAY

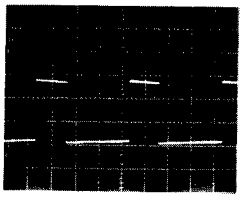


SERVO

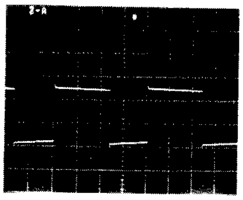
1 IC601-8
0.1V/500nsec.cm
REC/PLAY



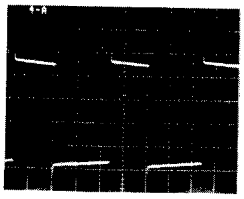
2 IC601-10
2V/10.0msec.cm
REC/PLAY



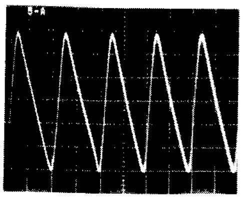
3 IC601-16
2V/10.0msec.cm
REC



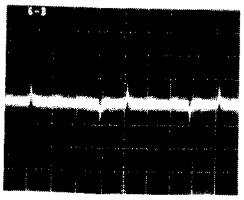
4 IC601-17
1V/10.0msec.cm
REC



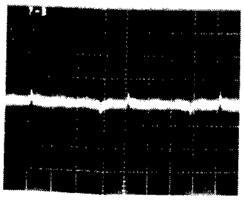
5 IC601-24
0.2V/200nsec.cm
REC/PLAY



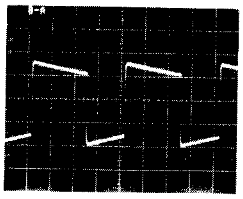
6 IC601-27
50mV/10.0msec.cm
PLAY



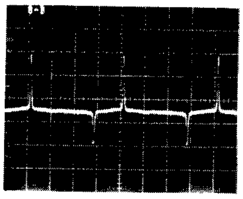
7 IC601-28
50mV/10.0msec.cm
PLAY



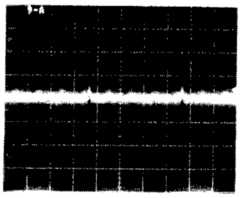
8 IC601-30
1V/10.0msec.cm
REC



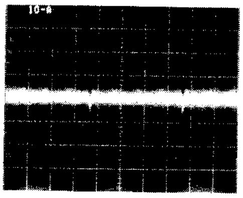
9 IC601-30
1V/10.0msec.cm
PLAY



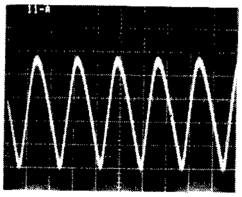
10 IC601-32
50mV/10.0msec.cm
REC/PLAY



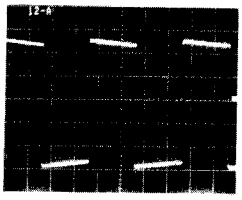
11 IC601-33
50mV/10.0msec.cm
REC/PLAY



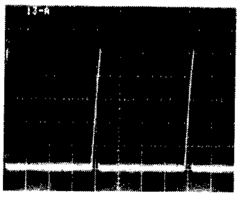
12 IC601-36
0.1V/200nsec.cm
REC/PLAY



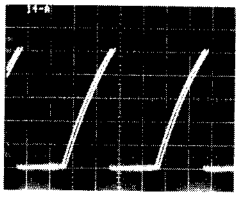
13 IC601-48
1V/10.0msec.cm
REC/PLAY



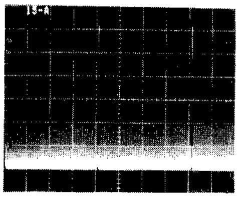
14 IC601-56
0.5V/5.0msec.cm
REC/PLAY



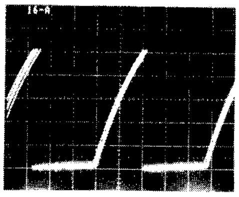
15 IC601-57
0.5V/5.0msec.cm
REC/PLAY



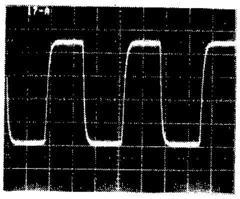
16 IC601-58
0.5V/5.0msec.cm
REC/PLAY



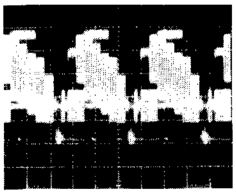
17 IC601-60
0.5V/10.0msec.cm
REC/PLAY

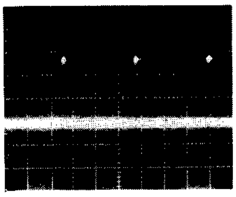


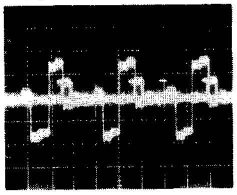
18 IC601-61
1V/1.0msec.cm
REC/PLAY

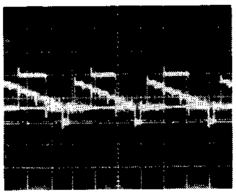


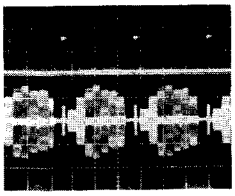
DIGITAL PROCESS

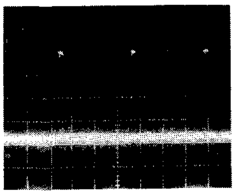

1 TP1001
0.2V/20.0μ sec.cm
EE/PinP

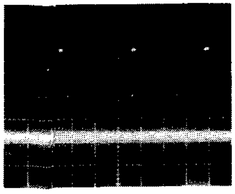

2 TP1004
2V/20.0μ sec.cm
EE/PinP

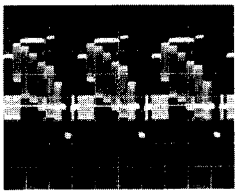

3 TP1007
2V/20.0μ sec.cm
PinP

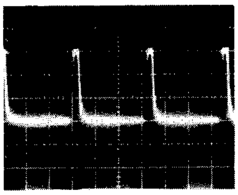

4 TP1008
0.5V/20.0μ sec.cm
PinP

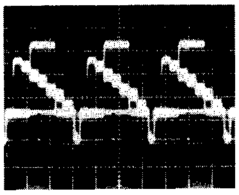

5 TP1012/TP1011
0.2V/20.0μ sec.cm
V. MEMO

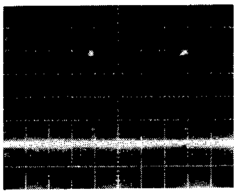

6 TP1012
0.2V/20.0μ sec.cm
PinP

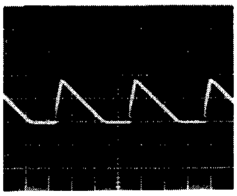

7 TP1013
0.2V/20.0μ sec.cm
PinP

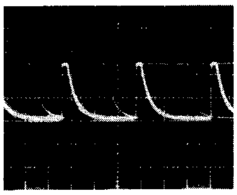

8 TP1014
0.5V/20.0μ sec.cm
PinP

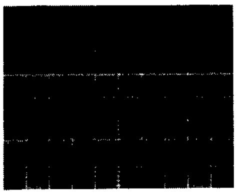

10 IC1002-4
0.2V/20.0μ sec.cm
EE/PinP

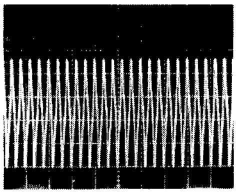

11 IC1002-5
0.2V/20.0μ sec.cm
EE/PinP

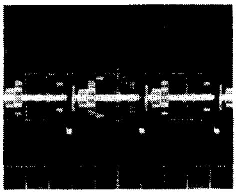

12 IC1002-6
1V/5.0msec.cm
EE/PinP

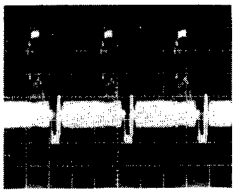

13 IC1002-7
1V/20.0μ sec.cm
EE/PinP

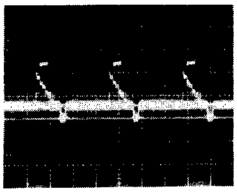

14 IC1002-9
1V/20.0μ sec.cm
EE/PinP

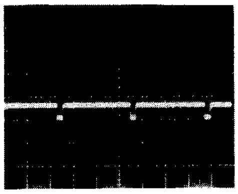

15 IC1002-10
0.1V/2.0μ sec.cm
EE/PinP

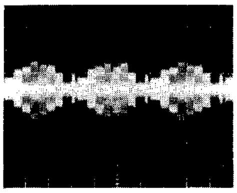

16 IC1002-12
0.2V/5.0μ sec.cm
EE/PinP

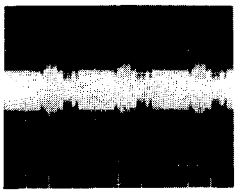

17 IC1002-14
0.2V/20.0μ sec.cm
EE

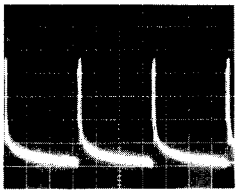

18 IC1002-14
0.2V/20.0μ sec.cm
PinP

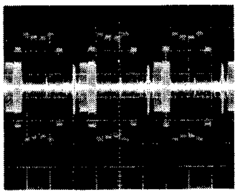

19 IC1002-16
0.2V/20.0μ sec.cm
PinP

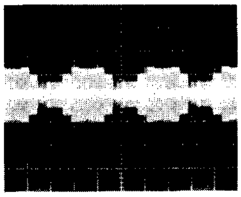

20 IC1002-16
0.2V/20.0μ sec.cm
EE

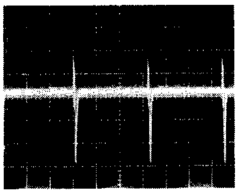

21 IC1002-17
0.1V/20.0μ sec.cm
EE

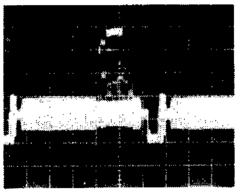

22 IC1002-17
0.1V/20.0μ sec.cm
PinP

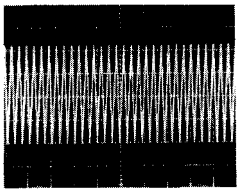

23 IC1002-19
0.1V/20.0μ sec.cm
EE/PinP

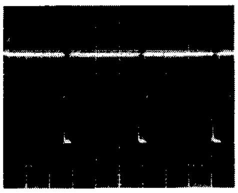

24 IC1002-22
0.2V/20.0μ sec.cm
PinP

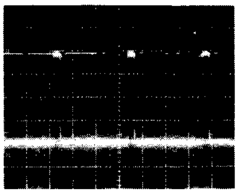

25 IC1002-24
0.1V/20.0μ sec.cm
PinP

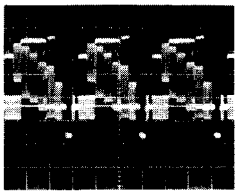

26 IC1002-25
0.2V/20.0μ sec.cm
PinP

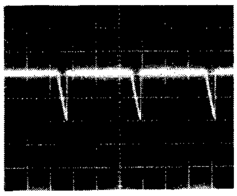

27 IC1003-3
20mV/1.0msec.cm
PinP

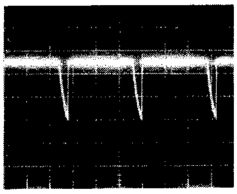

28 IC1003-6
0.5V/200μ sec.cm
EE/PinP

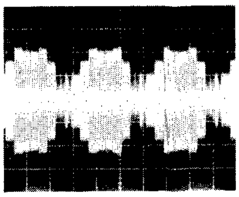

29 IC1003-9
1V/20.0μ sec.cm
EE/PinP

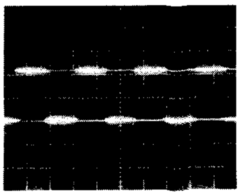

30 IC1003-10
1V/20.0μ sec.cm
EE/PinP

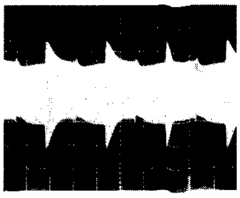

31 IC1003-11
0.2V/20.0μ sec.cm
EE/PinP


32 IC1004-1
0.5V/20.0μ sec.cm
EE/PinP

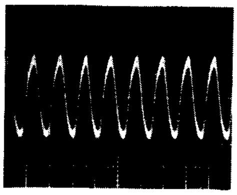

33 IC1004-2
0.5V/20.0μ sec.cm
EE/PinP


34 IC1004-5
50mV/20.0μ sec.cm
EE/PinP

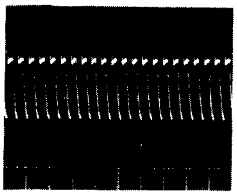

35 IC1004-9
2V/50.0μ sec.cm
EE/PinP


36 IC1004-11
0.2V/50.0μ sec.cm
EE/PinP

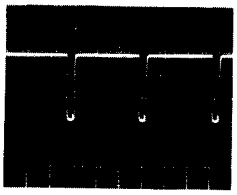
37 IC1004-13
0.1V/20.0μ sec.cm
EE/PinP



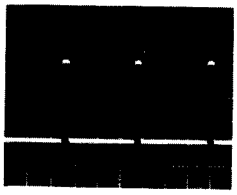
38 IC1004-19
0.2V/1.0μ sec.cm
EE/PinP



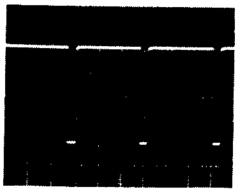
39 IC1004-27
2V/20.0μ sec.cm
EE/PinP



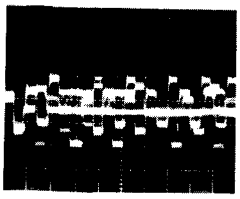
40 IC1004-29
0.5V/20.0μ sec.cm
EE/PinP



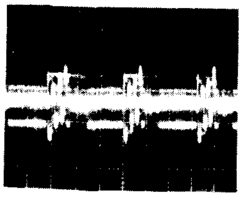
41 IC1004-30
1V/20.0μ sec.cm
EE/PinP



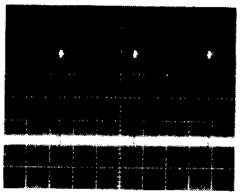
42 IC1005-1
0.1V/20.0μ sec.cm
EE



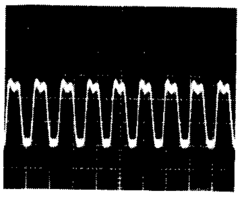
43 IC1005-1
0.1V/20.0μ sec.cm
PinP



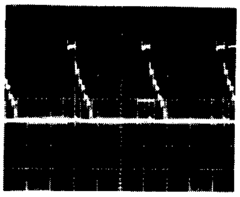
44 IC1005-3
0.2V/20.0μ sec.cm
EE/PinP



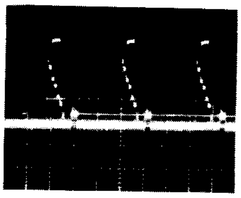
45 IC1005-5
0.1V/2.0msec.cm
EE/PinP



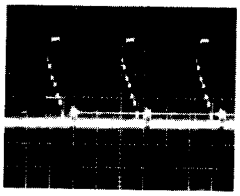
46 IC1005-8
0.1V/20.0μ sec.cm
PinP



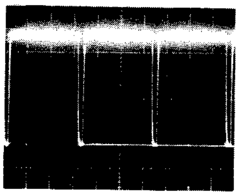
47 IC1005-12
0.2V/20.0μ sec.cm
PinP



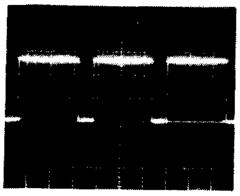
48 IC1005-14
0.5V/20.0μ sec.cm
PinP



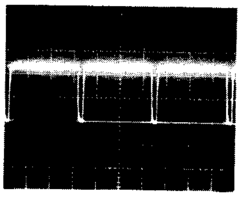
49 IC1005-15
1V/20.0μ sec.cm
EE/PinP



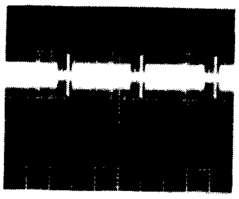
50 IC1005-16
1V/20.0μ sec.cm
EE/PinP



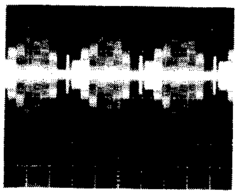
51 IC1005-17
2V/20.0μ sec.cm
EE/PinP



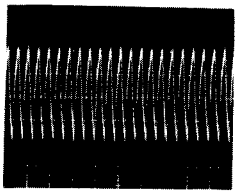
52 IC1005-18
0.2V/20.0μ sec.cm
PinP



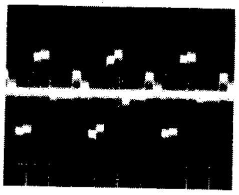
53 IC1005-18
0.2V/20.0μ sec.cm
EE



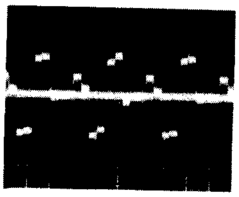
54 IC1005-20
0.1V/500nsec.cm
EE/PinP



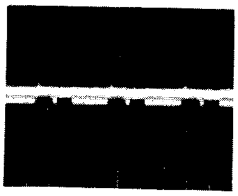
55 IC1005-22
0.2V/20.0μ sec.cm
EE/PinP



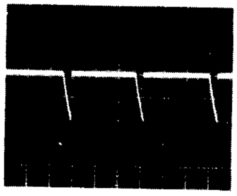
56 IC1005-24
0.1V/20.0μ sec.cm
EE



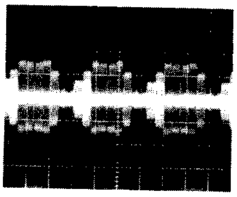
57 IC1005-24
0.1V/20.0μ sec.cm
PinP



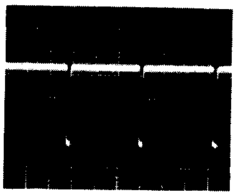
58 IC1006-1
0.5V/20.0μ sec.cm
EE-PinP



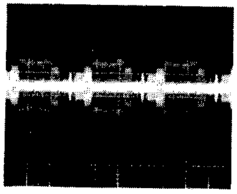
59 IC1006-3
0.1V/20.0μ sec.cm
PinP



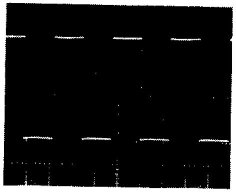
60 IC1006-4
0.2V/20.0μ sec.cm
PinP



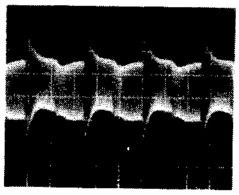
61 IC1006-5
0.1V/20.0μ sec.cm
PinP



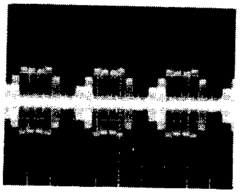
62 IC1006-9
1V/50.0μ sec.cm
PinP



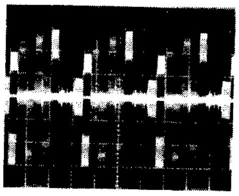
63 IC1006-11
0.2V/50.0μ sec.cm
PinP



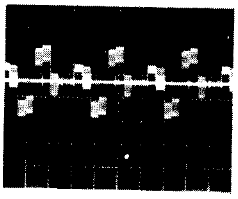
64 IC1006-15
0.1V/20.0μ sec.cm
PinP



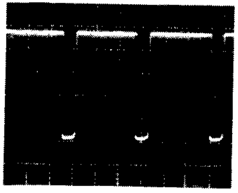
65 IC1006-20
0.2V/20.0μ sec.cm
PinP



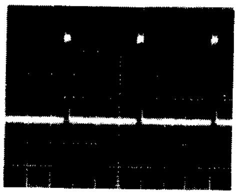
66 IC1006-21
0.5V/20.0μ sec.cm
PinP



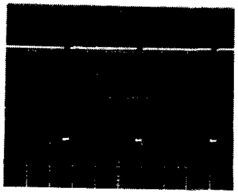
67 IC1006-25
1V/20.0μ sec.cm
PinP



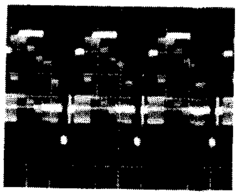
68 IC1006-29
0.2V/20.0μ sec.cm
PinP



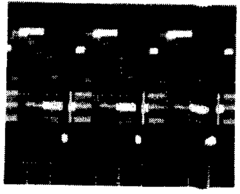
69 IC1006-30
1V/20.0μ sec.cm
PinP



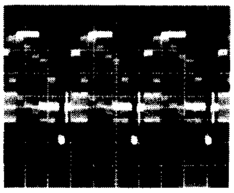
70 IC1030-2
0.2V/20.0μ sec.cm
PinP



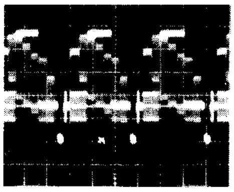
71 IC1030-3
0.2V/20.0μ sec.cm
PinP



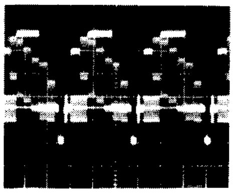
72 IC1030-5
0.2V/20.0μ sec.cm
PinP



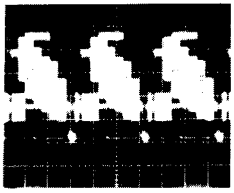
73 IC1030-12
0.2V/20.0μ sec.cm
PinP



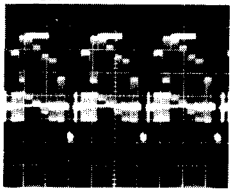
74 IC1030-15
0.2V/20.0μ sec.cm
PinP



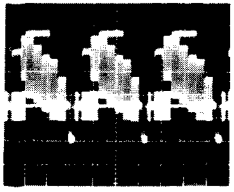
75 IC1031-1
0.2V/20.0μ sec.cm
EE/PinP



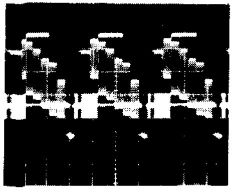
76 IC1031-2
20mV/20.0μ sec.cm
PinP



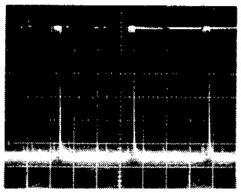
77 IC1031-6
0.5V/20.0μ sec.cm
EE/PinP



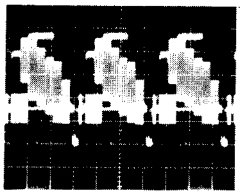
78 IC1031-7
0.2V/20.0μ sec.cm
PinP



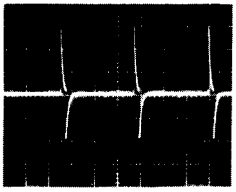
79 IC1031-8
2V/20.0μ sec.cm
EE/PinP



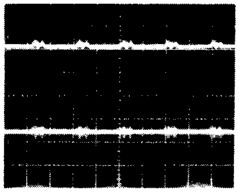
80 IC1031-9
0.2V/20.0μ sec.cm
EE/PinP



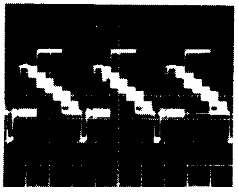
81 IC1031-10
2V/20.0μ sec.cm
PinP



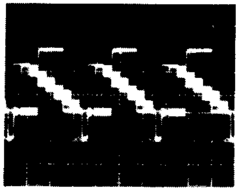
82 IC1031-13
0.2V/20.0μ sec.cm
PinP



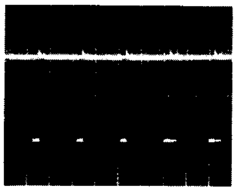
83 IC1031-14
0.5V/20.0μ sec.cm
PinP



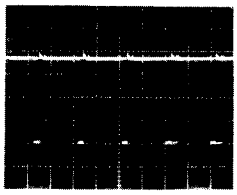
84 IC1031-16
0.5V/20.0μ sec.cm
PinP



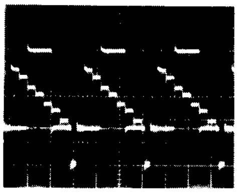
85 IC1011-8
1V/100μ sec.cm
PinP



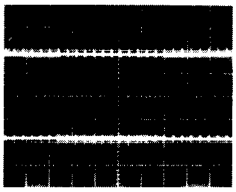
86 IC1011-8
1V/100μ sec.cm
EE/PinP



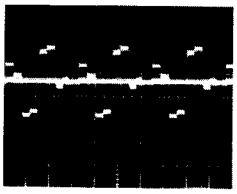
87 IC1011-15
0.2V/20.0μ sec.cm
EE/PinP



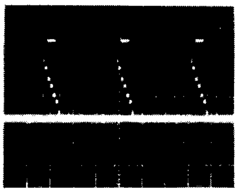
88 IC1012-5
1V/500μ sec.cm
EE/PinP



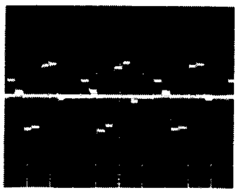
89 IC1012-15
0.2V/20.0μ sec.cm
PinP



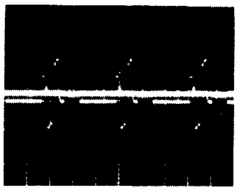
90 IC1025-3
0.2V/20.0μ sec.cm
PinP



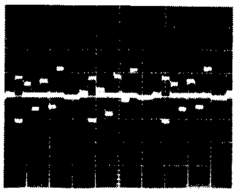
91 IC1026-3
0.2V/20.0μ sec.cm
EE



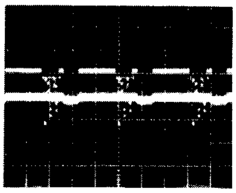
92 IC1026-3
0.2V/20.0μ sec.cm
PinP



93 IC1027-3
0.2V/20.0μ sec.cm
EE



94 IC1027-3
0.2V/20.0μ sec.cm
PinP



REPLACEMENT PARTS LIST
ELECTRICAL PARTS LIST (UK)

SYMBOL-NO	P-NO	DESCRIPTION
		CAPACITORS
C 201	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C 202	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C 203	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C 204	1-162-293-31	CERAMIC DISC 820PF+-10% 50V
C 205	1-162-211-31	CERAMIC DISC 33PF+-50% 50V
C 207	1-161-494-00	CERAMIC DISC 0.022UF+80-20% 25V
C 208	1-162-217-31	CERAMIC DISC 56PF+-50% 50V
C 211	1-162-209-31	CERAMIC DISC 27PF+-50% 50V
C 216	1-161-494-00	CERAMIC DISC 0.022UF+80-20% 25V
C 223	1-162-282-31	CERAMIC DISC 100PF+-10% 50V
C 225	1-126-320-11	ELECTROLYTIC 10UF 16V
C 228	1-161-494-00	CERAMIC DISC 0.022UF+80-20% 25V
C 230	1-161-494-00	CERAMIC DISC 0.022UF+80-20% 25V
C 233	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C 236	1-102-980-00	CERAMIC DISC 270PF+-5% 50V
C 242	1-126-094-11	ELECTROLYTIC 4.7UF 35V
C 243	1-126-161-11	ELECTROLYTIC 2.2UF 50V
C 308	1-102-980-00	CERAMIC DISC 270PF+-5% 50V
C 309	1-162-213-31	CERAMIC DISC 39PF+-50% 50V
C 310	1-162-205-31	CERAMIC DISC 18PF+-5% 50V
C 313	1-162-292-31	CERAMIC DISC 680PF+-10% 50V
C 314	1-162-207-31	CERAMIC DISC 22PF+-5% 50V
C 316	1-162-217-31	CERAMIC DISC 56PF+-50% 50V
C 318	1-162-213-31	CERAMIC DISC 39PF+-50% 50V
C 319	1-101-361-00	CERAMIC DISC 150PF+-5% 50V
C 351	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C 355	1-161-494-00	CERAMIC DISC 0.022UF+80-20% 25V
C 357	1-161-494-00	CERAMIC DISC 0.022UF+80-20% 25V
C 402L	1-124-465-00	ELECTROLYTIC 0.47UF 50V
C 409L	1-162-199-31	CERAMIC DISC 10PF+-5% 50V
C 409R	1-162-199-31	CERAMIC DISC 10PF+-5% 50V
C 411L	1-126-345-11	ELECTROLYTIC 47UF 6.3V
C 413	1-124-438-00	ELECTROLYTIC 1UF 50V
C 415L	1-124-438-00	ELECTROLYTIC 1UF 50V
C 416R	1-126-157-11	ELECTROLYTIC 10UF 16V
C 419	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C 420	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C 421	1-126-345-00	ELECTROLYTIC 47UF 6.3V
C 422	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C 430	1-124-438-00	ELECTROLYTIC 1UF 50V
C 431L	1-124-465-00	ELECTROLYTIC 0.47UF 50V
C 436R	1-126-157-11	ELECTROLYTIC 10UF 16V
C 503	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C 504	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C 510	1-161-494-00	CERAMIC DISC 0.022UF+80-20% 25V
C 512	1-162-292-31	CERAMIC DISC 680PF+-10% 50V
C 516	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C 524L	1-102-115-00	CERAMIC DISC 560PF+-5% 50V
C 524R	1-102-115-00	CERAMIC DISC 560PF+-5% 50V
C 526L	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C 526R	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C 527	1-161-494-00	CERAMIC DISC 0.022UF+80-20% 25V
C 528L	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C 528R	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C 531	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C 534	1-162-288-31	CERAMIC DISC 330PF+-10% 50V
C 536	1-124-438-00	ELECTROLYTIC 1UF 50V
C 539	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C 542	1-126-157-11	ELECTROLYTIC 10UF 16V
C 547	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C 549	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C 551	1-162-292-31	CERAMIC DISC 680PF+-10% 50V
C 553	1-161-494-00	CERAMIC DISC 0.022UF+80-20% 25V
C 557	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C 558	1-161-494-00	CERAMIC DISC 0.022UF+80-20% 25V
C 560	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C 561L	1-126-157-11	ELECTROLYTIC 10UF 16V
C 561R	1-126-157-11	ELECTROLYTIC 10UF 16V
C 565	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C 568L	1-162-211-31	CERAMIC DISC 33PF+-50% 50V
C 568R	1-162-211-31	CERAMIC DISC 33PF+-50% 50V
C 571	1-102-115-00	CERAMIC DISC 560PF+-5% 50V
C 572	1-162-282-31	CERAMIC DISC 100PF+-10% 50V
C 573	1-162-294-31	CERAMIC DISC 1000PF+-10% 50V
C 574	1-162-294-31	CERAMIC DISC 1000PF+-10% 50V
C 575	1-162-294-31	CERAMIC DISC 1000PF+-10% 50V
C 576	1-162-294-31	CERAMIC DISC 1000PF+-10% 50V
C 608	1-161-494-00	CERAMIC DISC 0.022UF+80-20% 25V
C 613	1-162-294-31	CERAMIC DISC 1000PF+-10% 50V
C 614	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C 617	1-161-494-00	CERAMIC DISC 0.022UF+80-20% 25V
C 618	1-161-374-11	CERAMIC DISC 1000PF+-20% 50V
C 623	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C 624	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C 625	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C 632	1-161-377-00	CERAMIC DISC 4700PF+-20% 25V
C 633	1-161-377-00	CERAMIC DISC 4700PF+-20% 25V
C 634	1-161-377-00	CERAMIC DISC 4700PF+-20% 25V
C 635	1-161-377-00	CERAMIC DISC 4700PF+-20% 25V
C 643	1-126-157-11	ELECTROLYTIC 10UF 16V
C 653	1-161-374-11	CERAMIC DISC 1500PF+-20% 50V
C 656	1-126-157-11	ELECTROLYTIC 10UF 16V (UK)
C 701	1-125-390-11	ELECTROLTIC 0.047F 5.5V
C 703	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C 704	1-161-494-00	CERAMIC DISC 0.022UF+80-20% 25V
C 705	1-161-494-00	CERAMIC DISC 0.022UF+80-20% 25V
C 708	1-102-959-00	CERAMIC DISC 22PF (UK)
C 709	1-126-162-11	CAPACITOR ELECTROLYTIC 3.3MF 50V
C 711	1-126-345-11	ELECTROLYTIC 47UF 6.3V
C 713	1-124-465-00	ELECTROLYTIC 0.47UF 50V
C 714	1-124-463-00	ELECTROLYTIC 0.1UF 50V
C 715	1-126-345-11	ELECTROLYTIC 47UF 6.3V
C 716	1-102-853-00	CERAMIC DISC 18PF (UK)
C 718	1-124-635-00	ELECTROLYTIC 220UF 6.3V
C 771	1-124-234-00	ELECTROLYTIC 22UF 16V
C 772	1-161-494-00	CERAMIC DISC 22000PF+80-20% 25V
C 773	1-126-157-11	ELECTROLYTIC 10UF 16V
C 774	1-161-494-00	CERAMIC DISC 0.022UF+80-20% 25V
C 815	1-162-288-31	CERAMIC DISC 330PF (UK)
C 822	1-162-282-31	CERAMIC DISC 100PF+-10% 50V
C 825	1-161-379-00	CERAMIC DISC 0.01UF (UK)
C 832	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C 834	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C 836	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C 838	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C 876	1-125-334-00	ELECTROLYTIC 4700UF 35V
C 880	1-126-169-11	ELECTROLYTIC 3300UF 16V
C 884	1-126-183-11	ELECTROLYTIC 1000UF 16V
C 902	1-161-494-00	CERAMIC DISC 0.022UF+80-20% 25V
C 904	1-162-211-31	CERAMIC DISC 33PF+-50% 50V
C 905	1-162-211-31	CERAMIC DISC 33PF+-50% 50V
C 906	1-161-494-00	CERAMIC DISC 0.022UF+80-20% 25V
C 907	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C 908	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C 912	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C 913	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C 915	1-161-494-00	CERAMIC DISC 0.022UF+80-20% 25V
C 916	1-161-494-00	CERAMIC DISC 0.022UF+80-20% 25V
C 918	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C 921	1-162-282-31	CERAMIC DISC 100PF+-10% 50V
C 922	1-162-282-31	CERAMIC DISC 100PF+-10% 50V
C 924	1-161-494-00	CERAMIC DISC 0.022UF+80-20% 25V
C1001	1-124-288-00	ELECTROLYTIC 22UF 10V
C1002	1-124-963-11	ELECTROLYTIC 33UF 16V
C1006	1-126-094-11	ELECTROLYTIC 10UF 35V
C1011	1-126-094-11	ELECTROLYTIC 10UF 35V
C1014	1-124-463-00	ELECTROLYTIC 0.1UF 50V
C1017	1-124-438-00	ELECTROLYTIC 1UF 50V
C1018	1-124-465-00	ELECTROLYTIC 0.47UF 50V
C1025	1-124-438-00	ELECTROLYTIC 1UF 50V
C1027	1-124-477-11	ELECTROLYTIC 47UF 25V
C1028	1-124-438-00	ELECTROLYTIC 1UF 50V
C1036	1-124-472-00	ELECTROLYTIC 470UF 10V
C1037	1-124-499-11	ELECTROLYTIC 1UF 50V
C1040	1-126-157-11	ELECTROLYTIC 10UF 16V
C1041	1-124-477-11	ELECTROLYTIC 47UF 25V
C1043	1-124-477-11	ELECTROLYTIC 47UF 25V
C1045	1-124-438-00	ELECTROLYTIC 1UF 50V
C1047	1-124-247-00	ELECTROLYTIC 10UF 35V
C1051	1-124-247-00	ELECTROLYTIC 10UF 35V
C1052	1-124-247-00	ELECTROLYTIC 10UF 35V
C1056	1-124-438-00	ELECTROLYTIC 1UF 50V
C1057	1-124-247-00	ELECTROLYTIC 10UF 35V

SYMBOL-NO	P-NO	DESCRIPTION
C1061	1-124-477-11	ELECTROLYTIC 47UF 25V
C1062	1-124-438-00	ELECTROLYTIC 1UF 50V
C1068	1-124-247-00	ELECTROLYTIC 10UF 35V
C1069	1-124-925-11	ELECTROLYTIC 2.2UF 100V
C1070	1-124-477-11	ELECTROLYTIC 47UF 25V
C1071	1-124-477-11	ELECTROLYTIC 47UF 25V
C1072	1-124-477-11	ELECTROLYTIC 47UF 25V
C1073	1-124-438-00	ELECTROLYTIC 1UF 50V
C1074	1-124-465-00	ELECTROLYTIC 0.47UF 50V
C1080	1-124-589-11	ELECTROLYTIC 47UF 16V
C1084	1-124-438-00	ELECTROLYTIC 1UF 50V
C1086	1-124-477-11	ELECTROLYTIC 47UF 25V
C1088	1-124-438-00	ELECTROLYTIC 1UF 50V
C1097	1-124-247-00	ELECTROLYTIC 10UF 35V
C1103	1-124-247-00	ELECTROLYTIC 10UF 35V
C1106	1-124-584-00	ELECTROLYTIC 100UF 10V
C1108	1-124-584-00	ELECTROLYTIC 100UF 10V
C1110	1-124-584-00	ELECTROLYTIC 100UF 10V
C1113	1-124-584-00	ELECTROLYTIC 100UF 10V
C1115	1-124-471-00	ELECTROLYTIC 1000UF 6.3V
C1116	1-124-589-11	ELECTROLYTIC 47UF 16V
C1123	1-124-438-00	ELECTROLYTIC 1UF 50V
C1128	1-124-478-11	ELECTROLYTIC 100UF 25V
C1134	1-124-589-11	ELECTROLYTIC 47UF 16V
C1137	1-124-584-00	ELECTROLYTIC 100UF 10V
C1139	1-124-963-11	ELECTROLYTIC 33UF 16V
C1140	1-126-094-11	ELECTROLYTIC 4.7UF 35V
C1141	1-124-438-00	ELECTROLYTIC 1UF 50V
C1142	1-126-157-11	ELECTROLYTIC 10UF 16V
C1145	1-126-320-11	ELECTROLYTIC 10UF 16V
C1146	1-124-472-11	ELECTROLYTIC 470UF 10V
C1150	1-124-472-11	ELECTROLYTIC 470UF 10V
C1153	1-126-335-11	ELECTROLYTIC 220UF 10V
C1157	1-126-335-11	ELECTROLYTIC 220UF 10V
C1179	1-124-438-00	ELECTROLYTIC 1UF 50V
C1180	1-124-438-00	ELECTROLYTIC 1UF 50V
C1404	1-161-494-00	CERAMIC DISC 0.022UF+80-20% 25V
C1405	1-126-168-11	ELECTROLYTIC 1000UF 6.3V (UK)
C1406	1-161-494-00	CERAMIC DISC 0.022UF+80-20% 25V
C1407	1-162-199-31	CERAMIC DISC 10PF+-5% 50V
C1408	1-162-199-31	CERAMIC DISC 10PF+-5% 50V
C1411	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C1412	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C1416	1-161-375-00	CERAMIC DISC 2200PF+-20% 50V
C1421	1-162-282-31	CERAMIC DISC 100PF+-10% 50V
C1422	1-162-293-31	CERAMIC DISC 820PF+-10% 50V
C1424	1-161-494-00	CERAMIC DISC 0.022UF+80-20% 25V
C1425	1-124-438-00	ELECTROLYTIC 1UF 50V
C1433	1-162-205-31	CERAMIC DISC 18PF+-5% 50V
C1434	1-162-205-31	CERAMIC DISC 18PF+-5% 50V
C1517	1-161-494-00	CERAMIC DISC 0.022UF+80-20% 25V
C1524	1-161-494-00	CERAMIC DISC 0.022UF+80-20% 25V
C1528	1-161-494-00	CERAMIC DISC 0.022UF+80-20% 25V
C1537	1-161-494-00	CERAMIC DISC 0.022UF+80-20% 25V
C1540	1-161-494-00	CERAMIC DISC 0.022UF+80-20% 25V
C1631	1-161-494-00	CERAMIC DISC 0.022UF+80-20% 25V
C1632	H-0890-013-H	CERAMIC DISC 22PF+-5% 50V
C1633	H-0890-013-H	CERAMIC DISC 22PF+-5% 50V
C1654	1-161-494-00	CERAMIC DISC 0.022UF+80-20% 25V
C2701	1-161-494-00	CERAMIC DISC 0.022UF+80-20% 25V
C2705	1-161-494-00	CERAMIC DISC 0.022UF+80-20% 25V
C2706	1-126-345-11	ELECTROLYTIC 47UF 6.3V
C2708	H-0890-011-H	CERAMIC DISC 15PF+-5% 50V
C2709	H-0890-011-H	CERAMIC DISC 15PF+-5% 50V
C3701	1-161-379-00	CERAMIC DISC 0.01UF+-20% 16V
C3703	1-161-379-00	CERAMIC DISC 0.01UF+-20% 16V
C3705	1-161-379-00	CERAMIC DISC 0.01UF+-20% 16V
C3707	1-161-494-00	CERAMIC DISC 0.022UF+80-20% 25V
CT1001	H-5058-482-H	TRIMMER 90PF
CT1002	H-5058-482-H	TRIMMER 90PF
		RESISTORS
R 659	H-0101-701-H	METAL FILM 0.47OHM+-5% 1/2W
RT 301	1-228-910-00	SEMI VARIABLE 4.7KOHM
RT 501L	1-228-996-00	SEMI VARIABLE 47KOHM
RT 501R	1-228-996-00	SEMI VARIABLE 47KOHM
RT 503	1-228-996-00	SEMI VARIABLE 47KOHM

SYMBOL-NO	P-NO	DESCRIPTION
RT 504	1-228-997-00	SEMI VARIABLE 100KOHM
RT 505	1-228-990-00	SEMI VARIABLE 1KOHM
RT 601	1-228-996-00	SEMI VARIABLE 47KOHM
RT 602	1-228-999-00	SEMI VARIABLE 470KOHM
RT 605	1-228-999-00	SEMI VARIABLE 470KOHM
RT 606	1-228-999-00	SEMI VARIABLE 470KOHM
RT1002	1-230-523-11	SEMI VARIABLE 10KOHM
RT1003	1-230-526-11	RESISTOR SEMI VARIABLE 47KOHM
RT1005	1-230-522-11	SEMI VARIABLE 4.7KOHM
RT1006	1-230-523-11	SEMI VARIABLE 10KOHM
RT1007	1-230-523-11	SEMI VARIABLE 10KOHM
RT1008	1-230-522-11	SEMI VARIABLE 4.7KOHM
RT1009	1-230-526-11	RESISTOR SEMI VARIABLE 47KOHM
RT1010	1-230-526-11	RESISTOR SEMI VARIABLE 47KOHM
RT1011	1-230-522-11	SEMI VARIABLE 4.7KOHM
RT1012	1-230-521-11	RESISTOR SEMI VARIABLE 2.2KOHM
RT1013	1-230-521-11	RESISTOR SEMI VARIABLE 2.2KOHM
RT1401	1-228-990-00	SEMI VARIABLE 1KOHM
RV 501	H-5009-147-H	VARIABLE 50KOHM
RV 502	H-5009-147-H	VARIABLE 50KOHM
RV 701	H-5009-123-H	VARIABLE 10KOHM
RV 703	H-5009-127-H	SEMI VARIABLE 500KOHM
RV 704	H-5009-123-H	VARIABLE 10KOHM
RV 705	H-5009-123-H	VARIABLE 10KOHM
		SEMI-CONDUCTORS
D 141	8-719-911-19	LED 1SS119
D 201	8-719-911-19	DIODE 1SS119
D 202	8-719-911-19	DIODE 1SS119
D 203	8-719-911-19	DIODE 1SS119
D 204	8-719-911-19	DIODE 1SS119
D 205	8-719-911-19	DIODE 1SS119
D 206	8-719-911-19	DIODE 1SS119
D 207	8-719-911-19	DIODE 1SS119
D 208	8-719-911-19	DIODE 1SS119
D 209	8-719-911-19	DIODE 1SS119
D 301	8-719-911-19	DIODE 1SS119
D 302	8-719-911-19	DIODE 1SS119
D 303	8-719-911-19	DIODE 1SS119
D 401	8-719-911-19	DIODE 1SS119
D 402	8-719-911-19	DIODE 1SS119
D 501	8-719-911-19	DIODE 1SS119
D 503	8-719-911-19	DIODE 1SS119
D 504	8-719-911-19	DIODE 1SS119
D 506L	8-719-911-19	DIODE 1SS119
D 506R	8-719-911-19	DIODE 1SS119
D 507	8-719-911-19	DIODE 1SS119
D 508	8-719-911-19	DIODE 1SS119
D 509	8-719-911-19	DIODE 1SS119
D 510	8-719-911-19	DIODE 1SS119
D 512	8-719-911-19	DIODE 1SS119
D 513	8-719-911-19	DIODE 1SS119
D 601	8-719-911-19	DIODE 1SS119
D 602	8-719-911-19	DIODE 1SS119
D 603	8-719-911-19	DIODE 1SS119
D 604	8-719-911-19	DIODE 1SS119
D 605	8-719-911-19	DIODE 1SS119
D 607	8-719-911-19	DIODE 1SS119
D 608	8-719-911-19	DIODE 1SS119
D 609	8-719-911-19	DIODE 1SS119
D 610	8-719-911-19	DIODE 1SS119
D 612	8-719-911-19	DIODE 1SS119
D 615	8-719-911-19	DIODE 1SS119
D 616	8-719-911-19	DIODE 1SS119
D 617	8-719-911-19	DIODE 1SS119
D 618	8-719-911-19	DIODE 1SS119
D 619	8-719-911-19	DIODE 1SS119
D 620	8-719-911-19	DIODE 1SS119
D 627	8-719-911-19	DIODE 1SS119
D 636	8-719-911-19	DIODE 1SS119
D 701	8-719-911-19	DIODE 1SS119
D 702	8-719-911-19	DIODE 1SS119
D 703	8-719-911-19	DIODE 1SS119
D 704	8-719-911-19	DIODE 1SS119
D 705	8-719-911-19	DIODE 1SS119
D 706	8-719-911-19	DIODE 1SS119
D 707	8-719-911-19	DIODE 1SS119

SYMBOL-NO	P-NO	DESCRIPTION
D 708	8-719-911-19	DIODE 1SS119
D 709	8-719-911-19	DIODE 1SS119
D 711	8-719-911-19	DIODE 1SS119
D 713	8-719-911-19	DIODE 1SS119
D 714	8-719-911-19	DIODE 1SS119
D 715	8-719-911-19	DIODE 1SS119
D 716	8-719-911-19	DIODE 1SS119
D 718	8-719-911-19	DIODE 1SS119
D 719	8-719-911-19	DIODE 1SS119
D 721	8-719-911-19	DIODE 1SS119
D 722	8-719-911-19	DIODE 1SS119
D 726	8-719-911-19	DIODE 1SS119
D 728	8-719-911-19	DIODE 1SS119 (UK)
D 730	8-719-911-19	DIODE 1SS119 (UK)
D 734	8-719-911-19	DIODE 1SS119
D 735	8-719-911-19	DIODE 1SS119
D 736	8-719-911-19	DIODE 1SS119
D 752	8-719-300-82	LED SEL-2213C
D 753	8-719-300-82	LED SEL-2213C
D 756	H-5381-213-H	LED SEL-2813A
D 757	8-719-300-82	LED SEL-2213C
D 758	8-719-301-46	LED SEL-2413E
D 760	8-719-911-19	DIODE 1SS119
D 761	8-719-911-19	DIODE 1SS119
D 801	8-719-911-19	DIODE 1SS119
⚠ D 851	8-719-500-55	DIODE D3SBA10
⚠ D 852	8-719-500-04	DIODE S1WB40
⚠ D 853	8-719-500-55	DIODE D3SBA10
D 854	8-719-911-19	DIODE 1SS119
D 855	8-719-911-19	DIODE 1SS119
⚠ D 856	8-719-200-02	DIODE 10E-2
⚠ D 857	8-719-200-02	DIODE 10E-2
⚠ D 858	8-719-200-02	DIODE 10E-2
⚠ D 859	8-719-200-02	DIODE 10E-2
D 860	8-719-911-19	DIODE 1SS119
D 902	8-719-911-19	DIODE 1SS119
D 903	8-719-911-19	DIODE 1SS119
D 904	8-719-911-19	DIODE 1SS119
D 908	8-719-911-19	DIODE 1SS119
D 909	8-719-911-19	DIODE 1SS119
D 910	8-719-911-19	DIODE 1SS119
D 913	8-719-911-19	DIODE 1SS119
D 914	8-719-911-19	DIODE 1SS119
D 915	8-719-911-19	DIODE 1SS119
D 916	8-719-911-19	DIODE 1SS119
D 917	8-719-911-19	DIODE 1SS119
D 919	8-719-911-19	DIODE 1SS119
D 920	8-719-911-19	DIODE 1SS119
D1001	H-5339-321-H	DIODE MA714
D1002	8-719-914-43	DIODE DAN202K
D1004	H-5339-321-H	DIODE MA714
D1005	8-719-914-43	DIODE DAN202K
D1006	8-719-914-43	DIODE DAN202K
D1007	8-719-914-43	DIODE DAN202K
D1401	8-719-911-19	DIODE 1SS119
D1501	8-719-911-19	DIODE 1SS119
D1502	8-719-911-19	DIODE 1SS119
D1503	8-719-911-19	DIODE 1SS119
D1504	8-719-911-19	DIODE 1SS119
D2701	8-719-911-19	DIODE 1SS119
D2705	8-719-911-19	DIODE 1SS119
D2706	8-719-911-19	DIODE 1SS119
D2707	8-719-911-19	DIODE 1SS119
D3701	8-719-911-19	DIODE 1SS119
D3702	8-719-911-19	DIODE 1SS119
D3703	8-719-911-19	DIODE 1SS119
D3704	8-719-911-19	DIODE 1SS119
D3705	8-719-911-19	DIODE 1SS119
D3706	8-719-911-19	DIODE 1SS119
D3707	8-719-911-19	DIODE 1SS119
D3708	8-719-911-19	DIODE 1SS119
D3709	8-719-911-19	DIODE 1SS119
D3710	8-719-911-19	DIODE 1SS119
D3714	8-719-911-19	DIODE 1SS119
D3715	8-719-911-19	DIODE 1SS119
IC 141	H-5391-282-H	IC DN6851
IC 142	H-5391-282-H	IC DN6851
IC 201	H-5385-087-H	MODULE HT4847F

SYMBOL-NO	P-NO	DESCRIPTION
IC 202	H-5385-093-H	MODULE HT4848B
IC 203	H-5384-632-H	MODULE HT4664A
IC 204	H-1387-122-H	MODULE HES8020A
IC 301	H-5385-481-H	MODULE HT4809
IC 401	H-5300-671-H	IC BA7720S
IC 402	8-759-605-46	IC M51131L
IC 403	8-759-600-02	IC M5218L
IC 404	H-5300-771-H	IC M51659L
IC 405	8-759-600-02	IC M5218L
IC 451	8-759-600-02	IC M5218L
IC 452	8-759-600-02	IC M5218L
IC 501	H-5300-861-H	IC HA12117NT
IC 502	H-5300-641-H	IC BA7755
IC 503	H-5300-871-H	IC HA12118NT
IC 504	8-759-145-58	IC UPC4558C
IC 507L	8-759-602-48	IC M5201L
IC 507R	8-759-602-48	IC M5201L
IC 509	8-759-145-58	IC UPC4558C
IC 601	H-1340-011-H	IC HD49716NT
IC 602	H-5300-821-H	IC M54874P
IC 603	H-5355-841-H	IC HA13403
IC 604	H-1387-231-H	MODULE BX7506
IC 605	H-5361-531-H	IC MSM 5258RS
IC 606	8-759-800-81	IC LA7016
IC 701	H-5302-351-H	IC M50954-674SP (UK)
IC 702	8-759-603-62	IC M58630P
IC 703	H-5361-942-H	IC S-8053ALB
IC 771	8-759-600-02	IC M5218L
IC 801	H-5367-201-H	IC LA7935 (UK)
IC 802	8-759-171-05	IC BA6993 (UK)
IC 851	H-5300-452-H	IC STK5372H
IC 852	8-759-802-18	IC L780S05
IC 853	H-1341-651-H	IC M5279L06
IC 901	H-5302-741-H	IC HD614088SC73
IC 902	H-5300-794-H	IC BA6209U4
IC 903	H-1388-041-H	MODULE HES8029
IC 904	H-1388-041-H	MODULE BX7570
IC1001	H-5304-921-H	IC TC74HC4053AF
IC1002	H-5304-571-H	IC HA11535MP
IC1003	8-759-701-96	IC NJM2217L
IC1004	8-759-603-53	IC M51271SP
IC1005	8-759-603-56	IC M51272FP
IC1006	8-759-603-53	IC M51271SP
IC1007	8-759-605-23	IC M65011FP
IC1008	H-5305-291-H	IC M50747FP
IC1009	8-759-205-12	IC TC74HC157M
IC1010	8-759-205-12	IC TC74HC157M
IC1011	8-759-605-14	IC M52678P
IC1012	8-759-605-14	IC M52678P
IC1013	8-759-205-11	IC TC74HC153M
IC1014	8-759-205-11	IC TC74HC153M
IC1015	8-759-205-11	IC TC74HC153M
IC1016	H-5301-491-H	IC M5M4C500L
IC1017	H-5301-491-H	IC M5M4C500L
IC1018	H-5301-491-H	IC M5M4C500L
IC1019	8-759-205-11	IC TC74HC153M
IC1020	8-759-205-11	IC TC74HC153M
IC1021	8-759-205-11	IC TC74HC153M
IC1022	8-759-205-12	IC TC74HC157M
IC1023	8-759-205-12	IC TC74HC157M
IC1024	8-759-205-12	IC TC74HC157M
IC1025	8-759-605-13	IC M52679P
IC1026	8-759-605-13	IC M52679P
IC1027	8-759-605-13	IC M52679P
IC1028	H-5304-911-H	IC UPD74HC221AG
IC1029	H-5386-063-H	MODULE HT4683B
IC1030	H-5301-011-H	IC HD14053FP
IC1031	H-5300-781-H	IC M51489L
IC1032	H-5361-943-H	IC S-8054ALR
IC1401	H-5301-254-H	IC M50455-003SP
IC1402	H-1340-021-H	IC NJM2229S
IC1501	8-759-800-81	IC LA7016
IC1502	8-759-800-81	IC LA7016
IC1503	8-759-800-81	IC LA7016
IC1504	8-759-800-81	IC LA7016
IC2701	H-5306-462-H	IC HD407400
IC3701	H-5302-691-H	IC MSM80C51BH
IC3702	H-1341-261-H	IC PST524D2

SYMBOL-NO	P-NO	DESCRIPTION
IC3703	8-759-604-02	IC M5278L56
Q 141	H-5324-661-H	TRANSISTOR PT-483F1
Q 142	H-5324-661-H	TRANSISTOR PT-483F1
Q 201	H-1320-031-H	TRANSISTOR 2SC3391C
Q 202	8-729-178-54	TRANSISTOR 2SC1740SR(S,R)
Q 203	8-729-178-54	TRANSISTOR 2SC1740SR(S,R)
Q 204	8-729-178-54	TRANSISTOR 2SC2785
Q 301	H-5324-641-H	TRANSISTOR 2SA1374C
Q 401L	8-729-178-54	TRANSISTOR 2SC2785
Q 401R	8-729-178-54	TRANSISTOR 2SC2785
Q 402	8-729-178-54	TRANSISTOR 2SC2785
Q 403L	8-729-178-43	TRANSISTER 2SC2784
Q 403R	8-729-178-43	TRANSISTER 2SC2784
Q 404	8-729-900-65	TRANSISTOR DTA144ES
Q 501	8-729-900-89	TRANSISTOR DTC144ES
Q 502	8-729-195-23	TRANSISTOR 2SA952
Q 503	8-729-178-54	TRANSISTOR 2SC2785
Q 504	8-729-900-89	TRANSISTOR DTC144ES
Q 505L	8-729-178-43	TRANSISTER 2SC2784E
Q 505R	8-729-178-43	TRANSISTER 2SC2784E
Q 506	8-729-900-65	TRANSISTOR DTA144ES
Q 507	8-729-900-89	TRANSISTOR DTA144ES
Q 511	8-729-900-89	TRANSISTOR DTA144ES
Q 512	8-729-900-89	TRANSISTOR DTA144ES
Q 516	8-729-384-48	TRANSISTOR 2SA844
Q 517	8-729-177-32	TRANSISTOR 2SD773
Q 518	8-729-384-48	TRANSISTOR 2SA844
Q 519	8-729-178-43	TRANSISTER 2SC2784
Q 520	8-729-900-89	TRANSISTOR DTC144ES
Q 604	8-729-178-54	TRANSISTOR 2SC2785
Q 701	8-729-178-54	TRANSISTOR 2SC2785
Q 702	8-729-178-54	TRANSISTOR 2SC2785
Q 703	8-729-195-23	TRANSISTOR 2SA952
Q 704	8-729-178-54	TRANSISTOR 2SC2785
Q 803	H-5323-323-H	TRANSISTOR 2SD1251-PO
Q 804	8-729-178-54	TRANSISTOR 2SC2785 (UK)
Q 805	8-729-195-23	TRANSISTOR 2SA673C (UK)
Q 851	8-729-177-43	TRANSISTOR 2SD774
Q 852	8-729-177-43	TRANSISTOR 2SD774
Q 901	8-729-178-54	TRANSISTER 2SC2785
Q1001	8-729-100-66	TRANSISTOR 2SC1623
Q1002	8-729-100-66	TRANSISTOR 2SC1623
Q1003	8-729-100-76	TRANSISTOR 2SA812
Q1004	8-729-100-76	TRANSISTOR 2SA812
Q1005	8-729-100-66	TRANSISTOR 2SC1623
Q1006	8-729-100-76	TRANSISTOR 2SA812
Q1007	8-729-100-66	TRANSISTOR 2SC1623
Q1008	8-729-100-66	TRANSISTOR 2SC1623
Q1009	8-729-100-66	TRANSISTOR 2SC1623
Q1010	8-729-100-66	TRANSISTOR 2SC1623
Q1012	8-729-100-76	TRANSISTOR 2SA812
Q1014	8-729-100-76	TRANSISTOR 2SA812
Q1015	8-729-100-76	TRANSISTOR 2SA812
Q1016	8-729-100-76	TRANSISTOR 2SA812
Q1017	8-729-100-76	TRANSISTOR 2SA812
Q1018	8-729-100-66	TRANSISTOR 2SC1623
Q1019	8-729-100-66	TRANSISTOR 2SC1623
Q1020	8-729-100-66	TRANSISTOR 2SC1623
Q1021	8-729-100-66	TRANSISTOR 2SC1623
Q1022	8-729-100-66	TRANSISTOR 2SC1623
Q1023	8-729-901-00	TRANSISTOR DTC124EK
Q1024	8-729-100-76	TRANSISTOR 2SA812
Q1025	8-729-100-66	TRANSISTOR 2SC1623
Q1026	8-729-100-76	TRANSISTOR 2SA812
Q1027	8-729-100-76	TRANSISTOR 2SA812
Q1028	8-729-100-76	TRANSISTOR 2SA812
Q1029	8-729-901-05	TRANSISTOR DTA124EK
Q1030	8-729-901-00	TRANSISTOR DTC124EK
Q1031	8-729-100-76	TRANSISTOR 2SA812
Q1032	8-729-100-76	TRANSISTOR 2SA812
Q1034	8-729-924-04	TRANSISTOR FMS2
Q1035	8-729-903-10	TRANSISTOR FMW1
Q1036	8-729-900-36	TRANSISTOR DTC124ES
Q1038	8-729-100-76	TRANSISTOR 2SA812
Q1039	8-729-100-76	TRANSISTOR 2SA812
Q1040	8-729-901-00	TRANSISTOR DTC124EK
Q1041	8-729-900-36	TRANSISTOR DTC124ES
Q1042	8-729-901-00	TRANSISTOR DTC124EK
Q1043	8-729-901-00	TRANSISTOR DTC124EK
Q1044	8-729-901-01	TRANSISTOR DTC144EK
Q1045	8-729-901-01	TRANSISTOR DTC144EK
Q1046	8-729-901-00	TRANSISTOR DTC124EK
Q1047	8-729-901-01	TRANSISTOR DTC144EK
Q1048	8-729-901-66	TRANSISTOR DTA144EK
Q1050	8-729-100-66	TRANSISTOR 2SC1623
Q1052	8-729-901-06	TRANSISTOR DTA144EK
Q1053	8-729-901-06	TRANSISTOR DTA144EK
Q1055	8-729-901-06	TRANSISTOR DTA144EK
Q1191	8-729-901-06	TRANSISTOR DTC144EK
Q1192	8-729-901-06	TRANSISTOR DTC144EK
Q1193	8-729-901-05	TRANSISTOR DTA124EK
Q1194	8-729-901-05	TRANSISTOR DTA124EK
Q1401	8-729-205-02	TRANSISTOR 2SA1150
Q1402	8-729-178-54	TRANSISTOR 2SC2785
Q1403	8-729-178-54	TRANSISTOR 2SC2785
Q1404	8-729-901-05	TRANSISTOR DTC124ES
Q1405	8-729-900-36	TRANSISTOR DTC124ES
Q1407	8-729-178-54	TRANSISTOR 2SC2785
Q1408	8-729-900-89	TRANSISTOR DTC144ES
Q1501	8-729-178-54	TRANSISTOR 2SC2785
Q1530	8-729-205-02	TRANSISTOR 2SA1150
Q1531	8-729-205-02	TRANSISTOR 2SA1150
Q1532	8-729-178-54	TRANSISTOR 2SC2785
Q1651	8-729-402-12	TRANSISTOR 2SD1276A
Q3705	8-729-178-54	TRANSISTOR 2SC2785
Q3708	8-729-205-02	TRANSISTOR 2SA1150
Q3711	8-729-205-02	TRANSISTOR 2SA1150
Q3712	8-729-205-02	TRANSISTOR 2SA1150
QR 201	8-729-900-63	TRANSISTOR DTA124ES
QR 202	8-729-900-63	TRANSISTOR DTA124ES
QR 203	8-729-900-63	TRANSISTOR DTA124ES
QR 204	8-729-900-36	TRANSISTOR DTC124ES
QR 301	8-729-900-63	TRANSISTOR DTA124ES
QR 302	8-729-900-63	TRANSISTOR DTA124ES
QR 601	8-729-900-89	TRANSISTOR DTC144ES
QR 602	8-729-900-89	TRANSISTOR DTC144ES
QR 603	8-729-900-89	TRANSISTOR DTC144ES
QR 605	8-729-900-89	TRANSISTOR DTC144ES
QR 608	8-729-900-89	TRANSISTOR DTC144ES
QR 609	8-729-900-89	TRANSISTOR DTC144ES
QR 611	8-729-900-89	TRANSISTOR DTC144ES
QR 702	8-729-900-89	TRANSISTOR DTC144ES
QR 703	8-729-900-89	TRANSISTOR DTC144ES
QR 901	8-729-900-89	TRANSISTOR DTC144ES
QR 902	8-729-900-89	TRANSISTOR DTC144ES
QR1501	8-729-900-65	TRANSISTOR DTA144ES
QR1502	8-729-900-89	TRANSISTOR DTC144ES
QR2701	8-729-900-89	TRANSISTOR DTC144ES
QR3702	8-729-900-89	TRANSISTOR DTC144ES
QR3703	8-729-900-89	TRANSISTOR DTC144ES
QR3704	H-5327-084-H	TRANSISTOR RT1P441S
QR3706	8-729-900-89	TRANSISTOR DTC144ES
QR3707	H-5327-084-H	TRANSISTOR RT1P441S
QR3709	8-729-900-89	TRANSISTOR DTC144ES
QR3710	8-729-900-89	TRANSISTOR DTC144ES
QR3713	8-729-900-89	TRANSISTOR DTC144ES
QR3714	8-729-900-89	TRANSISTOR DTC144ES
QR3715	8-729-900-89	TRANSISTOR DTC144ES
ZD 401	8-719-109-89	DIODE RD5.6ES-B2
ZD 402	8-719-109-89	DIODE RD5.6ES-B2
ZD 403	8-719-109-89	DIODE RD5.6ES-B2
ZD 501	8-719-110-08	DIODE RD8.2ES-B2
ZD 502	8-719-110-08	DIODE RD8.2ES-B2
ZD 503	8-719-109-71	DIODE RD3.9ES-B1
ZD 701	8-719-110-13	DIODE RD9.1ES-B2
ZD 702	8-719-109-60	DIODE RD2.7ES-B2
ZD 703	8-719-110-03	DIODE RD7.5ES-B2
ZD 801	8-759-157-40	IC UPC574J (UK)
ZD 851	8-719-110-03	DIODE RD7.5ES-B2
ZD 852	8-719-110-03	DIODE RD7.5ES-B2
ZD 901	8-719-110-18	DIODE RD8.2ES-B2
ZD 902	8-719-109-93	DIODE RD6.2ES-B2
ZD 903	8-719-109-93	DIODE RD6.2ES-B2
ZD1651	8-719-110-44	DIODE RD16ES-B1
ZD3701	8-719-110-41	DIODE RD15ES-B2
ZD3702	8-719-110-41	DIODE RD15ES-B2

SYMBOL-NO	P-NO	DESCRIPTION
ZD3703	8-719-110-41	DIODE RD15ES-B2
ZD3704	8-719-109-51	DIODE RD2.0ES-B2
ZD3705	8-719-110-41	DIODE RD15ES-B2
ZD3706	8-719-110-41	DIODE RD15ES-B2
		TRANSFORMER
T 501	H-5261-352-H	OSC COIL
T 502	H-5261-351-H	COIL,OSC
⚠ T 850	H-5214-052-H	TRANSFORMER,POWER
		COILS
L 201	1-408-421-00	CHOKE COIL 100UH+-10%
L 202	1-408-415-00	CHOKE COIL 33UH+-5%
L 203	1-408-421-00	CHOKE COIL 100UH+-10%
L 204	1-408-420-00	CHOKE COIL 82UH
L 205	1-408-415-00	CHOKE COIL 33UH+-10%
L 206	1-408-418-00	CHOKE COIL 56UH
L 207	1-408-421-00	CHOKE COIL 100UH+-10%
L 208	1-408-421-00	CHOKE COIL 100UH+-10%
L 209	1-408-421-00	CHOKE COIL 100UH+-10%
L 210	1-408-418-00	CHOKE COIL 56UH
L 211	1-408-425-00	CHOKE COIL 220UH+-10%
L 212	1-408-421-00	CHOKE COIL 100UH+-10%
L 213	1-408-416-00	CHOKE COIL 39UH
L 301	H-5159-113-H	CHOKE COIL 8.2MH
L 302	1-408-411-00	CHOKE COIL 15UH
L 303	1-408-409-00	CHOKE COIL 10UH
L 304	1-408-418-00	CHOKE COIL 56UH
L 305	1-408-416-00	CHOKE COIL 39UH
L 306	1-408-414-00	CHOKE COIL 27UH
L 307	1-408-881-00	CHOKE COIL 820UH+-10%
L 308	1-408-425-00	CHOKE COIL 220UH
L 309	1-408-425-00	CHOKE COIL 220UH+-10%
L 310	1-408-411-00	CHOKE COIL 15UH
L 311	1-408-409-00	CHOKE COIL 10UH
L 401L	H-5130-421-H	COIL 2.4MH
L 401R	H-5130-421-H	COIL 2.4MH
L 501	1-408-421-00	CHOKE COIL 100UH+-10%
L 502	1-410-457-11	CHOKE COIL 15000UH
L 503	1-410-457-11	CHOKE COIL 15000UH
L 504	1-408-424-00	CHOKE COIL 180UH
L 506	H-5159-111-H	CHOKE COIL 5600UH
L 702	1-408-881-00	CHOKE COIL 820UH
L 851	H-5273-341-H	LINE FILTER
L 901	1-408-421-00	CHOKE COIL 100UH+-10%
L1002	1-408-421-00	CHOKE COIL 100UH+-10%
L1003	1-408-421-00	CHOKE COIL 100UH+-10%
L1005	1-408-421-00	CHOKE COIL 100UH+-10%
L1006	1-408-421-00	CHOKE COIL 100UH+-10%
L1008	1-408-421-00	CHOKE COIL 100UH+-10%
L1009	1-408-421-00	COIL 100UH+-10%
L1010	1-408-410-00	COIL 12UH+-10%
L1013	1-408-421-00	COIL 100UH+-10%
L1014	1-408-421-00	CHOKE COIL 100UH+-10%
L1015	1-408-421-00	CHOKE COIL 100UH+-10%
L1016	1-408-421-00	CHOKE COIL 100UH+-10%
L1017	1-408-421-00	CHOKE COIL 100UH+-10%
L1018	1-408-421-00	CHOKE COIL 100UH+-10%
L1020	1-408-421-00	CHOKE COIL 100UH+-10%
L1021	1-408-421-00	CHOKE COIL 100UH+-10%
L1022	1-408-421-00	CHOKE COIL 100UH+-10%
L1023	1-408-421-00	CHOKE COIL 100UH+-10%
L1024	1-408-421-00	CHOKE COIL 100UH+-10%
L1401	1-408-421-00	CHOKE COIL 100UH+-10%
L1403	1-408-421-00	CHOKE COIL 100UH+-10%
L1404	1-408-415-00	CHOKE COIL 100UH+-10%
L1405	1-408-417-00	CHOKE COIL 47UH+-10%
L1406	1-408-415-00	CHOKE COIL 33UH+-10%
L1501	1-408-421-00	CHOKE COIL 100UH+-10%
L1502	1-408-421-00	CHOKE COIL 100UH+-10%
L1530	1-408-421-00	CHOKE COIL 100UH+-10%
L1591	1-408-421-00	CHOKE COIL 100UH+-10%
L1630	1-408-421-00	CHOKE COIL 100UH+-10%
L3702	1-408-421-00	CHOKE COIL 100UH+-10%
		CRYSTALS

SYMBOL-NO	P-NO	DESCRIPTION
X 701	H-5781-581-H	CRYSTAL 32.768KHZ
X 702	H-5783-832-H	CRYSTAL 17.7MHZ
X1001	H-5782-832-H	CRYSTAL 17.7MHZ
X1002	H-5782-832-H	CRYSTAL 17.7MHZ
X1003	H-5781-981-H	CRYSTAL 8.0MHZ
X1004	H-5782-851-H	CRYSTAL 20MHZ
X1005	H-5781-782-H	CRYSTAL 500KHZ
X1401	H-5782-832-H	CRYSTAL 17.7MHZ
X1402	H-5781-782-H	CRYSTAL 500KHZ
X1630	H-5780-652-H	CRYSTAL (AEP,UK)
X2701	H-5781-981-H	CRYSTAL 8.0MHZ
X3701	H-5782-891-H	CRYSTAL 12.0MHZ
		MISCELLAEOUS
BL 501	H-5272-375-H	LINE FILTER
BL 502	H-5272-375-H	LINE FILTER
BL 503	H-5272-375-H	LINE FILTER
BL 504	H-5272-375-H	LINE FILTER
BL1001	H-5272-375-H	LINE FILTER
BL1002	H-5272-375-H	LINE FILTER
BZ1501	H-5409-272-H	BUZZER
CE 901	H-5781-591-H	CRYSTAL
CP 201	H-5163-301-H	FILTER,TRAP 4.4MHZ
CP 202	H-5163-341-H	LOW PASS FILTER
CP 203	H-5163-311-H	TRAP COIL
CP 204	H-5169-003-H	LOW PASS FILTER
CP 301	H-5163-082-H	BAND PASS FILTER
CP 302	H-5785-388-H	DELAY LINE
CP 401L	H-5163-021-H	BAND PASS FILTER
CP 401R	H-5163-021-H	BAND PASS FILTER
CP 502	H-5163-103-H	LOW PASS FILTER
CP 503	H-5163-103-H	LOW PASS FILTER
CP 504	H-5163-103-H	LOW PASS FILTER
CP1001	H-5162-973-H	BAND PASS FILTER
CP1002	H-5162-973-H	BAND PASS FILTER
CP1003	H-5163-112-H	LOW PASS FILTER
CP1004	H-5163-112-H	LOW PASS FILTER
CP1005	H-5163-112-H	LOW PASS FILTER
CP1006	H-5163-711-H	DELAY LINE
CP1007	H-0239-053-H	LINE FILTER
CP1008	H-0239-053-H	LINE FILTER
CP1009	H-0239-053-H	LINE FILTER
CP1016	H-0239-054-H	CERAMIC DISC 270PF+-10% 50V
CP1017	H-0239-054-H	CERAMIC DISC 270PF+-10% 50V
CP1019	H-0239-054-H	CERAMIC DISC 270PF+-10% 50V
CP1021	H-0239-057-H	CERAMIC DISC 47PF+-10% 50V
CP1022	H-0239-057-H	CERAMIC DISC 47PF+-10% 50V
CP1024	H-0239-054-H	CERAMIC DISC 270PF+-10% 50V
CP1025	H-0239-054-H	CERAMIC DISC 270PF+-10% 50V
CP1026	H-0239-054-H	CERAMIC DISC 270PF+-10% 50V
CP1028	H-0239-057-H	CERAMIC DISC 47PF+-10% 50V
CP1029	H-0239-054-H	CERAMIC DISC 270PF+-10% 50V
CP1030	H-0239-054-H	CERAMIC DISC 270PF+-10% 50V
CP1031	H-0239-054-H	CERAMIC DISC 270PF+-10% 50V
CP1033	H-0239-057-H	CERAMIC DISC 47PF+-10% 50V
CP1034	H-0239-057-H	CERAMIC DISC 47PF+-10% 50V
CP1035	H-0239-057-H	CERAMIC DISC 47PF+-10% 50V
CP1036	H-0239-057-H	CERAMIC DISC 47PF+-10% 50V
CP1038	H-5163-701-H	LOW PASS FILTER
DG 701	H-5315-031-H	DISPLAY
⚠ F 850	1-532-078-00	FUSE 1A
⚠ F 851	H-5721-064-H	FUSE 2.5A
⚠ F 852	1-532-259-00	FUSE 1.6A
⚠ F 853	1-532-235-00	FUSE 315MA
⚠ F 855	H-5720-171-H	FUSE 3.5MA
IR 701	H-5477-545-H	MODULE IR
J 701	H-5673-763-H	MINI JACK
J3701	H-5694-691-H	SOCKET
J3702	H-5671-891-H	MINI JACK
J3703	H-5671-891-H	MINI JACK
LV 701	H-5317-055-H	PWB ASSY LEVEL INDICATOR
QF 801	H-5721-941-H	IC PROTECTOR
QF 802	H-5721-941-H	IC PROTECTOR
S 141	H-5635-321-H	SWITCH
S 142	H-5635-321-H	SWITCH
S 701	1-570-313-11	SWITCH

SYMBOL-NO	P-NO	DESCRIPTION
S 702	1-570-313-11	SWITCH
S 703	1-570-313-11	SWITCH
S 704	1-570-313-11	SWITCH
S 705	1-570-313-11	SWITCH
S 706	1-570-313-11	SWITCH
S 707	1-570-313-11	SWITCH
S 708	1-570-313-11	SWITCH
S 709	1-570-313-11	SWITCH
S 710	1-570-313-11	SWITCH
S 711	1-570-313-11	SWITCH
S 712	1-570-313-11	SWITCH
S 713	1-570-313-11	SWITCH
S 714	1-570-313-11	SWITCH
S 715	1-570-313-11	SWITCH
S 716	1-570-313-11	SWITCH
S 717	1-570-313-11	SWITCH
S 718	1-570-313-11	SWITCH
S 722	1-570-313-11	SWITCH
S 723	1-570-313-11	SWITCH
S 724	1-570-313-11	SWITCH
S 725	1-570-313-11	SWITCH
S 726	1-570-313-11	SWITCH
S 727	1-570-313-11	SWITCH
S 728	1-570-313-11	SWITCH
S 733	1-570-313-11	SWITCH
S 737	1-570-313-11	SWITCH
S 751	1-570-313-11	SWITCH
S 752	1-570-313-11	SWITCH
S 755	1-570-313-11	SWITCH
S 756	1-570-313-11	SWITCH
S 757	1-570-313-11	SWITCH
S 758	1-570-313-11	SWITCH
S1501	H-5622-562-H	SWITCH
S1502	H-5622-562-H	SWITCH
S3701	H-5622-031-H	SWITCH

SYMBOL-NO	P-NO	DESCRIPTION

ELECTRICAL PARTS LIST (WG)

SYMBOL-NO	P-NO	DESCRIPTION
		CAPACITORS
C 201	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C 202	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C 203	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C 204	1-162-293-31	CERAMIC DISC 820PF+-10% 50V
C 205	1-162-211-31	CERAMIC DISC 33PF+-50% 50V
C 207	1-161-494-00	CERAMIC DISC 0.022UF+80-20% 25V
C 208	1-162-217-31	CERAMIC DISC 56PF+-50% 50V
C 211	1-162-209-31	CERAMIC DISC 27PF+-50% 50V
C 216	1-161-494-00	CERAMIC DISC 0.022UF+80-20% 25V
C 223	1-162-282-31	CERAMIC DISC 100PF+-10% 50V
C 225	1-126-320-11	ELECTROLYTIC 10UF 16V
C 228	1-161-494-00	CERAMIC DISC 0.022UF+80-20% 25V
C 230	1-161-494-00	CERAMIC DISC 0.022UF+80-20% 25V
C 233	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C 236	1-102-980-00	CERAMIC DISC 270PF+-5% 50V
C 242	1-126-094-11	ELECTROLYTIC 4.7UF 35V
C 243	1-126-161-11	ELECTROLYTIC 2.2UF 50V
C 308	1-102-980-00	CERAMIC DISC 270PF+-5% 50V
C 309	1-162-213-31	CERAMIC DISC 39PF+-5% 50V
C 310	1-162-205-31	CERAMIC DISC 18PF+-5% 50V
C 313	1-162-292-31	CERAMIC DISC 680PF+-10% 50V
C 314	1-162-207-31	CERAMIC DISC 22PF+-5% 50V
C 316	1-162-217-31	CERAMIC DISC 56PF+-50% 50V
C 318	1-162-213-31	CERAMIC DISC 39PF+-50% 50V
C 319	1-101-361-00	CERAMIC DISC 150PF+-5% 50V
C 351	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C 352	1-162-219-31	CERAMIC DISC 68PF+-50% 50V (WG,AEP)
C 355	1-161-494-00	CERAMIC DISC 0.022UF+80-20% 25V
C 357	1-161-494-00	CERAMIC DISC 0.022UF+80-20% 25V
C 402L	1-124-465-00	ELECTROLYTIC 0.47UF 50V
C 409L	1-162-199-31	CERAMIC DISC 10PF+-5% 50V
C 409R	1-162-199-31	CERAMIC DISC 10PF+-5% 50V
C 411L	1-126-345-11	ELECTROLYTIC 47UF 6.3V
C 413	1-124-438-00	ELECTROLYTIC 1UF 50V
C 415L	1-124-438-00	ELECTROLYTIC 1UF 50V
C 416R	1-126-157-11	ELECTROLYTIC 10UF 16V
C 419	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C 420	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C 421	1-126-345-00	ELECTROLYTIC 47UF 6.3V
C 422	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C 430	1-124-438-00	ELECTROLYTIC 1UF 50V
C 431L	1-124-465-00	ELECTROLYTIC 0.47UF 50V
C 436R	1-126-157-11	ELECTROLYTIC 10UF 16V
C 503	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C 504	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C 510	1-161-494-00	CERAMIC DISC 0.022UF+80-20% 25V
C 512	1-162-292-31	CERAMIC DISC 680PF+-10% 50V
C 516	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C 524L	1-102-115-00	CERAMIC DISC 560PF+-5% 50V
C 524R	1-102-115-00	CERAMIC DISC 560PF+-5% 50V
C 526L	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C 526R	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C 527	1-161-494-00	CERAMIC DISC 0.022UF+80-20% 25V
C 528L	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C 528R	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C 531	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C 534	1-162-288-31	CERAMIC DISC 330PF+-10% 50V
C 536	1-124-438-00	ELECTROLYTIC 1UF 50V
C 539	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C 542	1-126-157-11	ELECTROLYTIC 10UF 16V
C 547	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C 549	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C 551	1-162-292-31	CERAMIC DISC 680PF+-10% 50V
C 553	1-161-494-00	CERAMIC DISC 0.022UF+80-20% 25V
C 557	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C 558	1-161-494-00	CERAMIC DISC 0.022UF+80-20% 25V
C 560	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C 561L	1-126-157-11	ELECTROLYTIC 10UF 16V
C 561R	1-126-157-11	ELECTROLYTIC 10UF 16V
C 565	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C 568L	1-162-211-31	CERAMIC DISC 33PF+-50% 50V
C 568R	1-162-211-31	CERAMIC DISC 33PF+-50% 50V
C 571	1-102-115-00	CERAMIC DISC 560PF+-5% 50V
C 572	1-162-282-31	CERAMIC DISC 100PF+-10% 50V
C 573	1-162-294-31	CERAMIC DISC 1000PF+-10% 50V
C 574	1-162-294-31	CERAMIC DISC 1000PF+-10% 50V
C 575	1-162-294-31	CERAMIC DISC 1000PF+-10% 50V
C 576	1-162-294-31	CERAMIC DISC 1000PF+-10% 50V
C 608	1-161-494-00	CERAMIC DISC 0.022UF+80-20% 25V
C 613	1-162-294-31	CERAMIC DISC 1000PF+-10% 50V
C 614	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C 617	1-161-494-00	CERAMIC DISC 0.022UF+80-20% 25V
C 618	1-161-374-11	CERAMIC DISC 1000PF+-20% 50V
C 623	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C 624	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C 625	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C 632	1-161-377-00	CERAMIC DISC 4700PF+-20% 25V
C 633	1-161-377-00	CERAMIC DISC 4700PF+-20% 25V
C 634	1-161-377-00	CERAMIC DISC 4700PF+-20% 25V
C 635	1-161-377-00	CERAMIC DISC 4700PF+-20% 25V
C 643	1-126-157-11	ELECTROLYTIC 10UF 16V
C 653	1-161-374-11	CERAMIC DISC 1500PF+-20% 50V
C 701	1-125-390-11	ELECTROLTIC 0.047F 5.5V
C 703	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C 704	1-161-494-00	CERAMIC DISC 0.022UF+80-20% 25V
C 705	1-161-494-00	CERAMIC DISC 0.022UF+80-20% 25V
C 709	1-126-162-11	CAPACITOR ELECTROLYTIC 3.3MF 50V
C 711	1-126-345-11	ELECTROLYTIC 47UF 6.3V
C 713	1-124-465-00	ELECTROLYTIC 0.47UF 50V
C 714	1-124-463-00	ELECTROLYTIC 0.1UF 50V
C 715	1-126-345-11	ELECTROLYTIC 47UF 6.3V
C 716	H-5058-562-H	TRIMMER 22PF (WG,AEP)
C 718	1-124-635-00	ELECTROLYTIC 220UF 6.3V
C 771	1-124-234-00	ELECTROLYTIC 22UF 16V
C 772	1-161-494-00	CERAMIC DISC 22000PF+80-20% 25V
C 773	1-126-157-11	ELECTROLYTIC 10UF 16V
C 774	1-161-494-00	CERAMIC DISC 0.022UF+80-20% 25V
C 808	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V(WG,AEP)
C 809	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V(WG,AEP)
C 810	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V(WG,AEP)
C 813	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V(WG,AEP)
C 820	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V(WG,AEP)
C 821	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V(WG,AEP)
C 822	1-162-282-31	CERAMIC DISC 100PF+-10% 50V
C 832	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C 834	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C 836	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C 838	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C 840	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V(WG)
C 876	1-125-334-00	ELECTROLYTIC 4700UF 35V
C 880	1-126-169-11	ELECTROLYTIC 3300UF 16V
C 884	1-126-183-11	ELECTROLYTIC 1000UF 16V
C 902	1-161-494-00	CERAMIC DISC 0.022UF+80-20% 25V
C 904	1-162-211-31	CERAMIC DISC 33PF+-50% 50V
C 905	1-162-211-31	CERAMIC DISC 33PF+-50% 50V
C 906	1-161-494-00	CERAMIC DISC 0.022UF+80-20% 25V
C 907	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C 908	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C 912	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C 913	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C 915	1-161-494-00	CERAMIC DISC 0.022UF+80-20% 25V
C 916	1-161-494-00	CERAMIC DISC 0.022UF+80-20% 25V
C 918	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C 921	1-162-282-31	CERAMIC DISC 100PF+-10% 50V
C 922	1-162-282-31	CERAMIC DISC 100PF+-10% 50V
C 924	1-161-494-00	CERAMIC DISC 0.022UF+80-20% 25V
C1001	1-124-288-00	ELECTROLYTIC 22UF 10V
C1002	1-124-963-11	ELECTROLYTIC 33UF 16V
C1006	1-126-094-11	ELECTROLYTIC 10UF 35V
C1011	1-126-094-11	ELECTROLYTIC 10UF 35V
C1014	1-124-463-00	ELECTROLYTIC 0.1UF 50V
C1016	1-124-477-11	ELECTROLYTIC 47UF 25V (WG,AEP)
C1017	1-124-438-00	ELECTROLYTIC 1UF 50V
C1018	1-124-465-00	ELECTROLYTIC 0.47UF 50V
C1025	1-124-438-00	ELECTROLYTIC 1UF 50V
C1027	1-124-477-11	ELECTROLYTIC 47UF 25V
C1028	1-124-438-00	ELECTROLYTIC 1UF 50V
C1036	1-124-472-00	ELECTROLYTIC 470UF 10V
C1037	1-124-499-11	ELECTROLYTIC 1UF 50V
C1040	1-126-157-11	ELECTROLYTIC 10UF 16V
C1041	1-124-477-11	ELECTROLYTIC 47UF 25V
C1043	1-124-477-11	ELECTROLYTIC 47UF 25V
C1045	1-124-438-00	ELECTROLYTIC 1UF 50V

SYMBOL-NO	P-NO	DESCRIPTION
C1047	1-124-247-00	ELECTROLYTIC 10UF 35V
C1051	1-124-247-00	ELECTROLYTIC 10UF 35V
C1052	1-124-247-00	ELECTROLYTIC 10UF 35V
C1056	1-124-438-00	ELECTROLYTIC 1UF 50V
C1057	1-124-247-00	ELECTROLYTIC 10UF 35V
C1061	1-124-477-11	ELECTROLYTIC 47UF 25V
C1062	1-124-438-00	ELECTROLYTIC 1UF 50V
C1068	1-124-247-00	ELECTROLYTIC 10UF 35V
C1069	1-124-925-11	ELECTROLYTIC 2.2UF 100V
C1070	1-124-477-11	ELECTROLYTIC 47UF 25V
C1071	1-124-477-11	ELECTROLYTIC 47UF 25V
C1072	1-124-477-11	ELECTROLYTIC 47UF 25V
C1073	1-124-438-00	ELECTROLYTIC 1UF 50V
C1074	1-124-465-00	ELECTROLYTIC 0.47UF 50V
C1080	1-124-589-11	ELECTROLYTIC 47UF 16V
C1084	1-124-438-00	ELECTROLYTIC 1UF 50V
C1086	1-124-477-11	ELECTROLYTIC 47UF 25V
C1088	1-124-438-00	ELECTROLYTIC 1UF 50V
C1097	1-124-247-00	ELECTROLYTIC 10UF 35V
C1103	1-124-247-00	ELECTROLYTIC 10UF 35V
C1106	1-124-584-00	ELECTROLYTIC 100UF 10V
C1108	1-124-584-00	ELECTROLYTIC 100UF 10V
C1110	1-124-584-00	ELECTROLYTIC 100UF 10V
C1113	1-124-584-00	ELECTROLYTIC 100UF 10V
C1115	1-124-471-00	ELECTROLYTIC 1000UF 6.3V
C1116	1-124-589-11	ELECTROLYTIC 47UF 16V
C1123	1-124-438-00	ELECTROLYTIC 1UF 50V
C1128	1-124-478-11	ELECTROLYTIC 100UF 25V
C1134	1-124-589-11	ELECTROLYTIC 47UF 16V
C1137	1-124-584-00	ELECTROLYTIC 100UF 10V
C1139	1-124-963-11	ELECTROLYTIC 33UF 16V
C1140	1-126-094-11	ELECTROLYTIC 4.7UF 35V
C1141	1-124-438-00	ELECTROLYTIC 1UF 50V
C1142	1-126-157-11	ELECTROLYTIC 10UF 16V
C1145	1-126-320-11	ELECTROLYTIC 10UF 16V
C1146	1-124-472-11	ELECTROLYTIC 470UF 10V
C1150	1-124-472-11	ELECTROLYTIC 470UF 10V
C1153	1-126-335-11	ELECTROLYTIC 220UF 10V
C1157	1-126-335-11	ELECTROLYTIC 220UF 10V
C1168	1-124-584-00	ELECTROLYTIC 100UF 10V (WG,AEP)
C1169	1-124-472-11	ELECTROLYTIC 470UF 10V (WG,AEP)
C1179	1-124-438-00	ELECTROLYTIC 1UF 50V
C1180	1-124-438-00	ELECTROLYTIC 1UF 50V
C1404	1-161-494-00	CERAMIC DISC 0.022UF+80-20% 25V
C1406	1-161-494-00	CERAMIC DISC 0.022UF+80-20% 25V
C1407	1-162-199-31	CERAMIC DISC 10PF+-5% 50V
C1408	1-162-199-31	CERAMIC DISC 10PF+-5% 50V
C1411	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C1412	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C1416	1-161-375-00	CERAMIC DISC 2200PF+-20% 50V
C1421	1-162-282-31	CERAMIC DISC 100PF+-10% 50V
C1422	1-162-293-31	CERAMIC DISC 820PF+-10% 50V
C1424	1-161-494-00	CERAMIC DISC 0.022UF+80-20% 25V
C1425	1-124-438-00	ELECTROLYTIC 1UF 50V
C1433	1-162-205-31	CERAMIC DISC 18PF+-5% 50V
C1434	1-162-205-31	CERAMIC DISC 18PF+-5% 50V
C1501	1-162-294-31	CERAMIC DISC 1000PF+-10% 50V(WG,AEP)
C1502	1-162-294-31	CERAMIC DISC 1000PF+-10% 50V(WG,AEP)
C1503	1-162-294-31	CERAMIC DISC 1000PF+-10% 50V(WG,AEP)
C1504	1-162-294-31	CERAMIC DISC 1000PF+-10% 50V(WG,AEP)
C1517	1-161-494-00	CERAMIC DISC 0.022UF+80-20% 25V
C1524	1-161-494-00	CERAMIC DISC 0.022UF+80-20% 25V
C1528	1-161-494-00	CERAMIC DISC 0.022UF+80-20% 25V
C1537	1-161-494-00	CERAMIC DISC 0.022UF+80-20% 25V
C1540	1-161-494-00	CERAMIC DISC 0.022UF+80-20% 25V
C1631	1-161-494-00	CERAMIC DISC 0.022UF+80-20% 25V
C1632	1-162-207-31	CERAMIC DISC 22PF+-5% 50V
C1633	1-162-207-31	CERAMIC DISC 22PF+-5% 50V
C1654	1-161-494-00	CERAMIC DISC 0.022UF+80-20% 25V
C2701	1-161-494-00	CERAMIC DISC 0.022UF+80-20% 25V
C2705	1-161-494-00	CERAMIC DISC 0.022UF+80-20% 25V
C2706	1-126-345-11	ELECTROLYTIC 47UF 6.3V
C2708	H-0890-011-H	CERAMIC DISC 15PF+-5% 50V
C2709	H-0890-011-H	CERAMIC DISC 15PF+-5% 50V
C3701	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C3703	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C3705	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C3707	1-161-494-00	CERAMIC DISC 0.022UF+80-20% 25V

SYMBOL-NO	P-NO	DESCRIPTION
CT1001	H-5058-482-H	TRIMMER 90PF
CT1002	H-5058-482-H	TRIMMER 90PF
		RESISTORS
R 659	H-0101-701-H	METAL FILM 0.47OHM+-5% 1/2W
R 837	H-0170-486-H	FUSE RESISTOR 22OHM+-5% 1/2W(WG,AEP)
RT 301	1-228-910-00	SEMI VARIABLE 4.7KOHM
RT 351	1-228-989-00	SEMI VARIABLE 470OHM (WG,AEP)
RT 501L	1-228-996-00	SEMI VARIABLE 47KOHM
RT 501R	1-228-996-00	SEMI VARIABLE 47KOHM
RT 503	1-228-996-00	SEMI VARIABLE 47KOHM
RT 504	1-228-997-00	SEMI VARIABLE 100KOHM
RT 505	1-228-990-00	SEMI VARIABLE 1KOHM
RT 601	1-228-996-00	SEMI VARIABLE 47KOHM
RT 602	1-228-999-00	SEMI VARIABLE 470KOHM
RT 605	1-228-999-00	SEMI VARIABLE 470KOHM
RT 606	1-228-999-00	SEMI VARIABLE 470KOHM
RT 801	1-228-993-00	SEMI VARIABLE 4.7KOHM (WG)
RT1002	1-230-523-11	SEMI VARIABLE 10KOHM
RT1003	1-230-526-11	RESISTOR SEMI VARIABLE 47KOHM
RT1005	1-230-522-11	SEMI VARIABLE 4.7KOHM
RT1006	1-230-523-11	SEMI VARIABLE 10KOHM
RT1007	1-230-523-11	SEMI VARIABLE 10KOHM
RT1008	1-230-522-11	SEMI VARIABLE 4.7KOHM
RT1009	1-230-526-11	RESISTOR SEMI VARIABLE 47KOHM
RT1010	1-230-526-11	RESISTOR SEMI VARIABLE 47KOHM
RT1011	1-230-522-11	SEMI VARIABLE 4.7KOHM
RT1012	1-230-521-11	RESISTOR SEMI VARIABLE 2.2KOHM
RT1013	1-230-521-11	RESISTOR SEMI VARIABLE 2.2KOHM
RT1401	1-228-990-00	SEMI VARIABLE 1KOHM
RV 501	H-5009-147-H	VARIABLE 50KOHM
RV 502	H-5009-147-H	VARIABLE 50KOHM
RV 701	H-5009-123-H	VARIABLE 10KOHM
RV 703	H-5009-127-H	SEMI VARIABLE 500KOHM
RV 704	H-5009-123-H	VARIABLE 10KOHM
RV 705	H-5009-123-H	VARIABLE 10KOHM
		SEMI-CONDUCTORS
D 141	8-719-911-19	LED 1SS119
D 201	8-719-911-19	DIODE 1SS119
D 202	8-719-911-19	DIODE 1SS119
D 203	8-719-911-19	DIODE 1SS119
D 204	8-719-911-19	DIODE 1SS119
D 205	8-719-911-19	DIODE 1SS119
D 206	8-719-911-19	DIODE 1SS119
D 207	8-719-911-19	DIODE 1SS119
D 208	8-719-911-19	DIODE 1SS119
D 209	8-719-911-19	DIODE 1SS119
D 301	8-719-911-19	DIODE 1SS119
D 302	8-719-911-19	DIODE 1SS119
D 303	8-719-911-19	DIODE 1SS119
D 401	8-719-911-19	DIODE 1SS119
D 402	8-719-911-19	DIODE 1SS119
D 501	8-719-911-19	DIODE 1SS119
D 503	8-719-911-19	DIODE 1SS119
D 504	8-719-911-19	DIODE 1SS119
D 506L	8-719-911-19	DIODE 1SS119
D 506R	8-719-911-19	DIODE 1SS119
D 507	8-719-911-19	DIODE 1SS119
D 508	8-719-911-19	DIODE 1SS119
D 509	8-719-911-19	DIODE 1SS119
D 510	8-719-911-19	DIODE 1SS119
D 512	8-719-911-19	DIODE 1SS119
D 513	8-719-911-19	DIODE 1SS119
D 601	8-719-911-19	DIODE 1SS119
D 602	8-719-911-19	DIODE 1SS119
D 603	8-719-911-19	DIODE 1SS119
D 604	8-719-911-19	DIODE 1SS119
D 605	8-719-911-19	DIODE 1SS119
D 607	8-719-911-19	DIODE 1SS119
D 608	8-719-911-19	DIODE 1SS119
D 609	8-719-911-19	DIODE 1SS119
D 610	8-719-911-19	DIODE 1SS119
D 612	8-719-911-19	DIODE 1SS119
D 615	8-719-911-19	DIODE 1SS119
D 616	8-719-911-19	DIODE 1SS119

SYMBOL-NO	P-NO	DESCRIPTION
D 617	8-719-911-19	DIODE 1SS119
D 618	8-719-911-19	DIODE 1SS119
D 619	8-719-911-19	DIODE 1SS119
D 620	8-719-911-19	DIODE 1SS119
D 627	8-719-911-19	DIODE 1SS119
D 636	8-719-911-19	DIODE 1SS119
D 701	8-719-911-19	DIODE 1SS119
D 702	8-719-911-19	DIODE 1SS119
D 703	8-719-911-19	DIODE 1SS119
D 704	8-719-911-19	DIODE 1SS119
D 705	8-719-911-19	DIODE 1SS119
D 706	8-719-911-19	DIODE 1SS119
D 707	8-719-911-19	DIODE 1SS119
D 708	8-719-911-19	DIODE 1SS119
D 709	8-719-911-19	DIODE 1SS119
D 711	8-719-911-19	DIODE 1SS119
D 713	8-719-911-19	DIODE 1SS119
D 714	8-719-911-19	DIODE 1SS119
D 715	8-719-911-19	DIODE 1SS119
D 716	8-719-911-19	DIODE 1SS119
D 718	8-719-911-19	DIODE 1SS119
D 719	8-719-911-19	DIODE 1SS119
D 721	8-719-911-19	DIODE 1SS119
D 722	8-719-911-19	DIODE 1SS119
D 726	8-719-911-19	DIODE 1SS119
D 734	8-719-911-19	DIODE 1SS119
D 735	8-719-911-19	DIODE 1SS119
D 736	8-719-911-19	DIODE 1SS119
D 752	8-719-300-82	LED SEL-2213C
D 753	8-719-300-82	LED SEL-2213C
D 754	8-719-300-82	LED SEL-2213C (WG,AEP)
D 755	8-719-300-82	LED SEL-2213C (WG,AEP)
D 756	H-5381-213-H	LED SEL-2813A
D 757	8-719-300-82	LED SEL-2213C
D 758	8-719-301-46	LED SEL-2413E
D 760	8-719-911-19	DIODE 1SS119
D 761	8-719-911-19	DIODE 1SS119
D 801	8-719-911-19	DIODE 1SS119
D 802	8-719-200-02	DIODE 10E-2 (WG,AEP)
D 803	8-719-911-19	DIODE 1SS119 (WG,AEP)
D 804	8-719-911-19	DIODE 1SS119 (WG,AEP)
D 805	H-5339-171-H	DIODE 1SS130 (WG,AEP)
D 806	H-5339-171-H	DIODE 1SS130 (WG,AEP)
⚠ D 851	8-719-500-55	DIODE D3SBA10
⚠ D 852	8-719-500-04	DIODE S1WB40
⚠ D 853	8-719-500-55	DIODE D3SBA10
D 854	8-719-911-19	DIODE 1SS119
D 855	8-719-911-19	DIODE 1SS119
⚠ D 856	8-719-200-02	DIODE 10E-2
⚠ D 857	8-719-200-02	DIODE 10E-2
⚠ D 858	8-719-200-02	DIODE 10E-2
⚠ D 859	8-719-200-02	DIODE 10E-2
D 860	8-719-911-19	DIODE 1SS119
D 902	8-719-911-19	DIODE 1SS119
D 903	8-719-911-19	DIODE 1SS119
D 904	8-719-911-19	DIODE 1SS119
D 908	8-719-911-19	DIODE 1SS119
D 909	8-719-911-19	DIODE 1SS119
D 910	8-719-911-19	DIODE 1SS119
D 913	8-719-911-19	DIODE 1SS119
D 914	8-719-911-19	DIODE 1SS119
D 915	8-719-911-19	DIODE 1SS119
D 916	8-719-911-19	DIODE 1SS119
D 917	8-719-911-19	DIODE 1SS119
D 919	8-719-911-19	DIODE 1SS119
D 920	8-719-911-19	DIODE 1SS119
D1001	H-5339-321-H	DIODE MA714
D1002	8-719-914-43	DIODE DAN202K
D1004	H-5339-321-H	DIODE MA714
D1005	8-719-914-43	DIODE DAN202K
D1006	8-719-914-43	DIODE DAN202K
D1007	8-719-914-43	DIODE DAN202K
D1401	8-719-911-19	DIODE 1SS119
D1501	8-719-911-19	DIODE 1SS119
D1502	8-719-911-19	DIODE 1SS119
D1503	8-719-911-19	DIODE 1SS119
D1504	8-719-911-19	DIODE 1SS119
D2701	8-719-911-19	DIODE 1SS119

SYMBOL-NO	P-NO	DESCRIPTION
D2705	8-719-911-19	DIODE 1SS119
D2706	8-719-911-19	DIODE 1SS119
D2707	8-719-911-19	DIODE 1SS119
D3701	8-719-911-19	DIODE 1SS119
D3702	8-719-911-19	DIODE 1SS119
D3703	8-719-911-19	DIODE 1SS119
D3704	8-719-911-19	DIODE 1SS119
D3705	8-719-911-19	DIODE 1SS119
D3706	8-719-911-19	DIODE 1SS119
D3707	8-719-911-19	DIODE 1SS119
D3708	8-719-911-19	DIODE 1SS119
D3709	8-719-911-19	DIODE 1SS119
D3710	8-719-911-19	DIODE 1SS119
D3714	8-719-911-19	DIODE 1SS119
D3715	8-719-911-19	DIODE 1SS119
IC 100	H-1387-861-H	MODULE HES8050 (WG)
IC 141	H-5391-282-H	IC DN6851
IC 142	H-5391-282-H	IC DN6851
IC 201	H-5385-087-H	MODULE HT4847F
IC 202	H-5385-093-H	MODULE HT4848B
IC 203	H-5384-632-H	MODULE HT4664A
IC 204	H-1387-122-H	MODULE HES8020A
IC 301	H-5385-481-H	MODULE HT4809
IC 351	H-5366-641-H	IC BA7025L (WG,AEP)
IC 401	H-5300-671-H	IC BA7720S
IC 402	8-759-605-46	IC M51131L
IC 403	8-759-600-02	IC M5218L
IC 404	H-5300-771-H	IC M51659L
IC 405	8-759-600-02	IC M5218L
IC 451	8-759-600-02	IC M5218L
IC 452	8-759-600-02	IC M5218L
IC 501	H-5300-861-H	IC HA12117NT
IC 502	H-5300-641-H	IC BA7755
IC 503	H-5300-871-H	IC HA12118NT
IC 504	8-759-145-58	IC UPC4558C
IC 507L	8-759-602-48	IC M5201L
IC 507R	8-759-602-48	IC M5201L
IC 509	8-759-145-58	IC UPC4558C
IC 601	H-1340-011-H	IC HD49716NT
IC 602	H-5300-821-H	IC M54874P
IC 603	H-5355-584-H	IC HA13403
IC 604	H-1387-231-H	MODULE BX7506
IC 605	H-5361-531-H	IC MSM 5258RS
IC 606	8-759-800-81	IC LA7016
IC 701	H-5302-351-H	IC LA7016 (WG,AEP)
IC 702	8-759-603-62	IC M58630P
IC 703	H-5361-942-H	IC S-8053ALB
IC 771	8-759-600-02	IC M5218L
IC 801	H-5367-201-H	IC UPC1484CA (WG,AEP)
IC 802	8-759-171-05	IC UPC1484CA (WG,AEP)
IC 803	H-5367-221-H	IC BA6993 (WG,AEP)
IC 851	H-5300-452-H	IC STK5372H
IC 852	8-759-802-18	IC L780S05
IC 853	H-1341-651-H	IC M5279L06
IC 901	H-5302-741-H	IC HD614088SC73
IC 902	H-5300-794-H	IC BA6209U4
IC 903	H-1387-191-H	MODULE HES8029
IC 904	H-1388-041-H	MODULE BX7570
IC1001	H-5304-921-H	IC TC74HC4053AF
IC1002	H-5304-571-H	IC HA11535MP
IC1003	8-759-701-96	IC NJM2217L
IC1004	8-759-603-53	IC M51271SP
IC1005	8-759-603-56	IC M51272FP
IC1006	8-759-603-53	IC M51271SP
IC1007	8-759-605-23	IC M65011FP
IC1008	H-5305-291-H	IC M50747FP
IC1009	8-759-205-12	IC TC74HC157M
IC1010	8-759-205-12	IC TC74HC157M
IC1011	8-759-605-14	IC M52678P
IC1012	8-759-605-14	IC M52678P
IC1013	8-759-205-11	IC TC74HC153M
IC1014	8-759-205-11	IC TC74HC153M
IC1015	8-759-205-11	IC TC74HC153M
IC1016	H-5301-491-H	IC M5M4C500L
IC1017	H-5301-491-H	IC M5M4C500L
IC1018	H-5301-491-H	IC M5M4C500L
IC1019	8-759-205-11	IC TC74HC153M
IC1020	8-759-205-11	IC TC74HC153M

SYMBOL-NO	P-NO	DESCRIPTION
IC1021	8-759-205-11	IC TC74HC153M
IC1022	8-759-205-12	IC TC74HC157M
IC1023	8-759-205-12	IC TC74HC157M
IC1024	8-759-205-12	IC TC74HC157M
IC1025	8-759-605-13	IC M52679P
IC1026	8-759-605-13	IC M52679P
IC1027	8-759-605-13	IC M52679P
IC1028	H-5304-911-H	IC UPD74HC221AG
IC1029	H-5386-063-H	MODULE HT4683B
IC1030	H-5301-011-H	IC HD14053FP
IC1031	H-5300-781-H	IC M51489L
IC1032	H-5361-943-H	IC S-8054ALR
IC1401	H-5301-254-H	IC M50455-003SP
IC1402	H-1340-021-H	IC NJM2229S
IC1501	8-759-800-81	IC LA7016
IC1502	8-759-800-81	IC LA7016
IC1503	8-759-800-81	IC LA7016
IC1504	8-759-800-81	IC LA7016
IC2701	H-5306-462-H	IC HD407400
IC3701	H-5302-691-H	IC MSM80C51BH
IC3702	H-1341-261-H	IC PST524D2
IC3703	8-759-604-02	IC M5278L56
Q 141	H-5324-661-H	TRANSISTOR PT-483F1
Q 142	H-5324-661-H	TRANSISTOR PT-483F1
Q 201	H-1320-031-H	TRANSISTOR 2SC3391C
Q 202	8-729-178-54	TRANSISTOR 2SC2785
Q 203	8-729-178-54	TRANSISTOR 2SC2785
Q 204	8-729-178-54	TRANSISTOR 2SC2785
Q 301	H-5324-641-H	TRANSISTOR 2SA1374C
Q 401L	8-729-178-54	TRANSISTOR 2SC2785
Q 401R	8-729-178-54	TRANSISTOR 2SC2785
Q 402	8-729-178-54	TRANSISTOR 2SC2785
Q 403L	8-729-178-43	TRANSISTER 2SC2784
Q 403R	8-729-178-43	TRANSISTER 2SC2784
Q 404	8-729-900-65	TRANSISTOR DTA144ES
Q 501	8-729-900-89	TRANSISTOR DTC144ES
Q 502	8-729-195-23	TRANSISTOR 2SA952
Q 503	8-729-178-54	TRANSISTOR 2SC2785
Q 504	8-729-900-89	TRANSISTOR DTC144ES
Q 505L	8-729-178-43	TRANSISTER 2SC2784E
Q 505R	8-729-178-43	TRANSISTER 2SC2784E
Q 506	8-729-900-65	TRANSISTOR DTA144ES
Q 507	8-729-900-89	TRANSISTOR DTA144ES
Q 511	8-729-900-89	TRANSISTOR DTA144ES
Q 512	8-729-900-89	TRANSISTOR DTA144ES
Q 516	8-729-384-48	TRANSISTOR 2SA844
Q 517	8-729-177-32	TRANSISTOR 2SD773
Q 518	8-729-384-48	TRANSISTOR 2SA844
Q 519	8-729-178-43	TRANSISTER 2SC2784
Q 520	8-729-900-89	TRANSISTOR DTC144ES
Q 604	8-729-178-54	TRANSISTOR 2SC2785
Q 701	8-729-178-54	TRANSISTOR 2SC2785
Q 702	8-729-178-54	TRANSISTOR 2SC2785
Q 703	8-729-195-23	TRANSISTOR 2SA952
Q 704	8-729-178-54	TRANSISTOR 2SC2785
Q 801	8-729-384-48	TRANSISTOR 2SA844 (WG,AEP)
Q 802	H-5327-031-H	TRANSISTOR 2SA673C (WG,AEP)
Q 803	H-5323-323-H	TRANSISTOR 2SD1251PO
Q 804	8-729-402-12	TRANSISTOR 2SD1276A (WG,AEP)
Q 851	8-729-177-43	TRANSISTOR 2SD774
Q 852	8-729-177-43	TRANSISTOR 2SD774
Q 901	8-729-178-54	TRANSISTER 2SC2785
Q1001	8-729-100-66	TRANSISTOR 2SC1623
Q1002	8-729-100-66	TRANSISTOR 2SC1623
Q1003	8-729-100-76	TRANSISTOR 2SA812
Q1004	8-729-100-76	TRANSISTOR 2SA812
Q1005	8-729-100-66	TRANSISTOR 2SC1623
Q1006	8-729-100-76	TRANSISTOR 2SA812
Q1007	8-729-100-66	TRANSISTOR 2SC1623
Q1008	8-729-100-66	TRANSISTOR 2SC1623
Q1009	8-729-100-66	TRANSISTOR 2SC1623
Q1010	8-729-100-66	TRANSISTOR 2SC1623
Q1012	8-729-100-76	TRANSISTOR 2SA812
Q1014	8-729-100-76	TRANSISTOR 2SA812
Q1015	8-729-100-76	TRANSISTOR 2SA812
Q1016	8-729-100-76	TRANSISTOR 2SA812
Q1017	8-729-100-76	TRANSISTOR 2SA812
Q1018	8-729-100-66	TRANSISTOR 2SC1623

SYMBOL-NO	P-NO	DESCRIPTION
Q1019	8-729-100-66	TRANSISTOR 2SC1623
Q1020	8-729-100-66	TRANSISTOR 2SC1623
Q1021	8-729-100-66	TRANSISTOR 2SC1623
Q1022	8-729-100-66	TRANSISTOR 2SC1623
Q1023	8-729-901-00	TRANSISTOR DTC124EK
Q1024	8-729-100-76	TRANSISTOR 2SA812
Q1025	8-729-100-66	TRANSISTOR 2SC1623
Q1026	8-729-100-76	TRANSISTOR 2SA812
Q1027	8-729-100-76	TRANSISTOR 2SA812
Q1028	8-729-100-76	TRANSISTOR 2SA812
Q1029	8-729-901-05	TRANSISTOR DTA124EK
Q1030	8-729-901-00	TRANSISTOR DTC124EK
Q1031	8-729-100-76	TRANSISTOR 2SA812
Q1032	8-729-100-76	TRANSISTOR 2SA812
Q1034	8-729-924-04	TRANSISTOR FMS2
Q1035	8-729-903-10	TRANSISTOR FMW1
Q1036	8-729-900-36	TRANSISTOR DTC124ES
Q1038	8-729-100-76	TRANSISTOR 2SA812
Q1039	8-729-100-76	TRANSISTOR 2SA812
Q1040	8-729-901-00	TRANSISTOR DTC124EK
Q1041	8-729-900-36	TRANSISTOR DTC124ES
Q1042	8-729-901-00	TRANSISTOR DTC124EK
Q1043	8-729-901-00	TRANSISTOR DTC124EK
Q1044	8-729-901-01	TRANSISTOR DTC144EK
Q1045	8-729-901-01	TRANSISTOR DTC144EK
Q1046	8-729-901-00	TRANSISTOR DTC124EK
Q1047	8-729-901-01	TRANSISTOR DTC144EK
Q1048	8-729-901-66	TRANSISTOR DTA144EK
Q1050	8-729-100-66	TRANSISTOR 2SC1623
Q1052	8-729-901-06	TRANSISTOR DTA144EK
Q1053	8-729-901-06	TRANSISTOR DTA144EK
Q1055	8-729-901-06	TRANSISTOR DTA144EK
Q1191	8-729-901-06	TRANSISTOR DTC144EK
Q1192	8-729-901-06	TRANSISTOR DTC144EK
Q1193	8-729-901-05	TRANSISTOR DTA124EK
Q1194	8-729-901-05	TRANSISTOR DTA124EK
Q1401	8-729-205-02	TRANSISTOR 2SA1150
Q1402	8-729-178-54	TRANSISTOR 2SC2785
Q1403	8-729-178-54	TRANSISTOR 2SC2785
Q1404	8-729-900-36	TRANSISTOR DTC124ES
Q1405	8-729-900-36	TRANSISTOR DTC124ES
Q1407	8-729-178-54	TRANSISTOR 2SC2785
Q1408	8-729-900-89	TRANSISTOR DTC144ES
Q1501	8-729-178-54	TRANSISTOR 2SC2785
Q1530	8-729-205-02	TRANSISTOR 2SA1150
Q1531	8-729-205-02	TRANSISTOR 2SA1150
Q1532	8-729-178-54	TRANSISTOR 2SC2785
Q1580	8-729-178-54	TRANSISTOR 2SC2785 (WG,AEP)
Q1581	8-729-402-12	TRANSISTOR 2SC2785 (WG,AEP)
Q1651	8-729-402-12	TRANSISTOR 2SD1276A
Q3705	8-729-178-54	TRANSISTOR 2SC2785
Q3708	8-729-205-02	TRANSISTOR 2SA1150
Q3711	8-729-205-02	TRANSISTOR 2SA1150
Q3712	8-729-205-02	TRANSISTOR 2SA1150
QR 201	8-729-900-63	TRANSISTOR DTA124ES
QR 202	8-729-900-63	TRANSISTOR DTA124ES
QR 203	8-729-900-63	TRANSISTOR DTA124ES
QR 204	8-729-900-36	TRANSISTOR DTC124ES
QR 301	8-729-900-63	TRANSISTOR DTA124ES
QR 302	8-729-900-63	TRANSISTOR DTA124ES
QR 601	8-729-900-89	TRANSISTOR DTC144ES
QR 602	8-729-900-89	TRANSISTOR DTC144ES
QR 603	8-729-900-89	TRANSISTOR DTC144ES
QR 605	8-729-900-89	TRANSISTOR DTC144ES
QR 608	8-729-900-89	TRANSISTOR DTC144ES
QR 609	8-729-900-89	TRANSISTOR DTC144ES
QR 611	8-729-900-89	TRANSISTOR DTC144ES
QR 701	8-729-900-65	TRANSISTOR DTA144ES (WG,AEP)
QR 702	8-729-900-89	TRANSISTOR DTC144ES
QR 703	8-729-900-89	TRANSISTOR DTC144ES
QR 901	8-729-900-89	TRANSISTOR DTC144ES
QR 902	8-729-900-89	TRANSISTOR DTC144ES
QR1501	8-729-900-65	TRANSISTOR DTA144ES
QR1502	8-729-900-89	TRANSISTOR DTC144ES
QR1801	8-729-900-63	TRANSISTOR DTA124ES (WG,AEP)
QR2701	H-5323-563-H	TRANSISTOR DTC144F
QR3702	8-729-900-89	TRANSISTOR DTC144ES
QR3703	8-729-900-89	TRANSISTOR DTC144ES

SYMBOL-NO	P-NO	DESCRIPTION
QR3704	H-5327-084-H	TRANSISTOR RT1P441S
QR3706	8-729-900-89	TRANSISTOR DTC144ES
QR3707	H-5327-084-H	TRANSISTOR RT1P441S
QR3709	8-729-900-89	TRANSISTOR DTC144ES
QR3710	8-729-900-89	TRANSISTOR DTC144ES
QR3713	8-729-900-89	TRANSISTOR DTC144ES
QR3714	8-729-900-89	TRANSISTOR DTC144ES
QR3715	8-729-900-89	TRANSISTOR DTC144ES
ZD 351	H-5330-394-H	DIODE HZ6A2 (WG,AEP)
ZD 401	8-719-109-89	DIODE RD5.6ES-B2
ZD 402	8-719-109-89	DIODE RD5.6ES-B2
ZD 403	8-719-109-89	DIODE RD5.6ES-B2
ZD 501	8-719-110-08	DIODE RD8.2ES-B2
ZD 502	8-719-110-08	DIODE RD8.2ES-B2
ZD 503	8-719-109-71	DIODE RD3.9ES-B1
ZD 701	8-719-110-13	DIODE RD9.1ES-B2
ZD 702	8-719-109-60	DIODE RD2.7ES-B2
ZD 703	8-719-110-03	DIODE RD7.5ES-B2
ZD 801	8-719-109-71	DIODE RD3.9ES-B1 (WG,AEP)
ZD 802	8-719-110-72	DIODE RD30ES-B2 (WG,AEP)
ZD 803	H-5339-252-H	DIODE HZS5-C2 (WG,AEP)
ZD 804	H-5339-252-H	DIODE HZS5-C2 (WG,AEP)
ZD 805	H-5339-256-H	DIODE HZS30 (WG,AEP)
ZD 851	8-719-110-03	DIODE RD7.5ES-B2
ZD 852	8-719-110-03	DIODE RD7.5ES-B2
ZD 901	8-719-110-18	DIODE RD8.2ES-B2
ZD 902	8-719-109-93	DIODE RD6.2ES-B2
ZD 903	8-719-109-93	DIODE RD6.2ES-B2
ZD1651	8-719-110-44	DIODE RD16ES-B1
ZD3701	8-719-110-41	DIODE RD15ES-B2
ZD3702	8-719-110-41	DIODE RD15ES-B2
ZD3703	8-719-110-41	DIODE RD15ES-B2
ZD3704	8-719-109-51	DIODE RD2.0ES-B2
ZD3705	8-719-110-41	DIODE RD15ES-B2
ZD3706	8-719-110-41	DIODE RD15ES-B2
		TRANSFORMERS
T 501	H-5261-352-H	OSC COIL
T 502	H-5261-351-H	COIL,OSC
⚠ T 850	H-5214-052-H	TRANSFORMER,POWER
		COILS
L 201	1-408-421-00	CHOKE COIL 100UH+-10%
L 202	1-408-415-00	CHOKE COIL 33UH+-5%
L 203	1-408-421-00	CHOKE COIL 100UH+-10%
L 204	1-408-420-00	CHOKE COIL 82UH
L 205	H-5159-071-H	CHOKE COIL 33UH+-10%
L 206	1-408-418-00	CHOKE COIL 56UH
L 207	1-408-421-00	CHOKE COIL 100UH+-10%
L 208	1-408-421-00	CHOKE COIL 100UH+-10%
L 209	1-408-421-00	CHOKE COIL 100UH+-10%
L 210	1-408-418-00	CHOKE COIL 56UH
L 211	1-408-425-00	CHOKE COIL 220UH+-10%
L 212	1-408-421-00	CHOKE COIL 100UH+-10%
L 213	1-408-416-00	CHOKE COIL 39UH
L 301	H-5159-113-H	CHOKE COIL 8.2MH
L 302	1-408-411-00	CHOKE COIL 15UH
L 303	1-408-409-00	CHOKE COIL 10UH
L 304	1-408-418-00	CHOKE COIL 56UH
L 305	1-408-416-00	CHOKE COIL 39UH
L 306	1-408-414-00	CHOKE COIL 27UH
L 307	1-408-881-00	CHOKE COIL 820UH+-10%
L 308	1-408-425-00	CHOKE COIL 220UH
L 309	1-408-425-00	CHOKE COIL 220UH+-10%
L 310	1-408-411-00	CHOKE COIL 15UH
L 311	1-408-409-00	CHOKE COIL 10UH
L 351	1-408-421-00	CHOKE COIL 100UH+-10% (WG,AEP)
L 401L	H-5130-421-H	COIL 2.4MH
L 401R	H-5130-421-H	COIL 2.4MH
L 501	1-408-421-00	CHOKE COIL 100UH+-10%
L 502	1-410-457-11	CHOKE COIL 15000UH
L 503	1-410-457-11	CHOKE COIL 15000UH
L 504	1-408-424-00	CHOKE COIL 180UH
L 506	H-5159-111-H	CHOKE COIL 5600UH
L 702	1-408-881-00	CHOKE COIL 820UH
L 851	H-5273-341-H	LINE FILTER

SYMBOL-NO	P-NO	DESCRIPTION
L 901	1-408-421-00	CHOKE COIL 100UH+-10%
L1002	1-408-421-00	CHOKE COIL 100UH+-10%
L1003	1-408-421-00	CHOKE COIL 100UH+-10%
L1005	1-408-421-00	CHOKE COIL 100UH+-10%
L1006	1-408-421-00	CHOKE COIL 100UH+-10%
L1008	1-408-421-00	CHOKE COIL 100UH+-10%
L1009	1-408-421-00	COIL 100UH+-10%
L1010	1-408-410-00	COIL 12UH+-10%
L1013	1-408-421-00	COIL 100UH+-10%
L1014	1-408-421-00	CHOKE COIL 100UH+-10%
L1015	1-408-421-00	CHOKE COIL 100UH+-10%
L1016	1-408-421-00	CHOKE COIL 100UH+-10%
L1017	1-408-421-00	CHOKE COIL 100UH+-10%
L1018	1-408-421-00	CHOKE COIL 100UH+-10%
L1020	1-408-421-00	CHOKE COIL 100UH+-10%
L1021	1-408-421-00	CHOKE COIL 100UH+-10%
L1022	1-408-421-00	CHOKE COIL 100UH+-10%
L1023	1-408-421-00	CHOKE COIL 100UH+-10%
L1024	1-408-421-00	CHOKE COIL 100UH+-10%
L1401	1-408-421-00	CHOKE COIL 100UH+-10%
L1402	1-408-421-00	CHOKE COIL 100UH+-10% (WG)
L1403	1-408-421-00	CHOKE COIL 100UH+-10%
L1404	1-408-415-00	CHOKE COIL 100UH+-10%
L1405	1-408-417-00	CHOKE COIL 47UH+-10%
L1406	1-408-415-00	CHOKE COIL 33UH+-10%
L1501	1-408-421-00	CHOKE COIL 100UH+-10%
L1502	1-408-421-00	CHOKE COIL 100UH+-10%
L1530	1-408-421-00	CHOKE COIL 100UH+-10%
L1591	1-408-421-00	CHOKE COIL 100UH+-10%
L1630	1-408-421-00	CHOKE COIL 100UH+-10%
L3702	1-408-421-00	CHOKE COIL 100UH+-10%
		CRYSTALS
X 701	H-5781-581-H	CRYSTAL 32.768KHZ
X 702	H-5783-001-H	CRYSTAL 17.7MHZ
X1001	H-5782-832-H	CRYSTAL 17.7MHZ
X1002	H-5782-832-H	CRYSTAL 17.7MHZ
X1003	H-5781-981-H	CRYSTAL 8.0MHZ
X1004	H-5782-851-H	CRYSTAL 20MHZ
X1005	H-5781-782-H	CRYSTAL 500KHZ
X1401	H-5782-832-H	CRYSTAL 17.7MHZ
X1402	H-5781-782-H	CRYSTAL 500KHZ
X2701	H-5781-981-H	CRYSTAL 8.0MHZ
X3701	H-5782-891-H	CRYSTAL 12.0MHZ
		MISCELLANEOUS
BL 501	H-5272-375-H	LINE FILTER
BL 502	H-5272-375-H	LINE FILTER
BL 503	H-5272-375-H	LINE FILTER
BL 504	H-5272-375-H	LINE FILTER
BL1001	H-5272-371-H	LINE FILTER
BL1002	H-5272-371-H	LINE FILTER
BZ1501	H-5409-272-H	BUZZER
CE 901	H-5781-591-H	CRYSTAL
CP 201	H-5163-301-H	FILTER,TRAP 4.4MHZ
CP 202	H-5163-341-H	LOW PASS FILTER
CP 203	H-5163-311-H	TRAP COIL
CP 204	H-5169-003-H	LOW PASS FILTER
CP 301	H-5163-082-H	BAND PASS FILTER
CP 302	H-5785-388-H	DELAY LINE
CP 351	H-5160-431-H	BAND PASS FILTER (WG,AEP)
CP 401L	H-5163-021-H	BAND PASS FILTER
CP 401R	H-5163-021-H	BAND PASS FILTER
CP 502	H-5163-103-H	LOW PASS FILTER
CP 503	H-5163-103-H	LOW PASS FILTER
CP 504	H-5163-103-H	LOW PASS FILTER
CP1001	H-5162-973-H	BAND PASS FILTER
CP1002	H-5162-973-H	BAND PASS FILTER
CP1003	H-5163-112-H	LOW PASS FILTER
CP1004	H-5163-112-H	LOW PASS FILTER
CP1005	H-5163-112-H	LOW PASS FILTER
CP1006	H-5163-711-H	DELAY LINE
CP1007	H-0239-053-H	LINE FILTER
CP1008	H-0239-053-H	LINE FILTER
CP1009	H-0239-053-H	LINE FILTER
CP1016	H-0239-054-H	CERAMIC DISC 270PF+-10% 50V

SYMBOL-NO	P-NO	DESCRIPTION
CP1017	H-0239-054-H	CERAMIC DISC 270PF+-10% 50V
CP1019	H-0239-054-H	CERAMIC DISC 270PF+-10% 50V
CP1021	H-0239-057-H	CERAMIC DISC 47PF+-10% 50V
CP1022	H-0239-057-H	CERAMIC DISC 47PF+-10% 50V
CP1024	H-0239-054-H	CERAMIC DISC 270PF+-10% 50V
CP1025	H-0239-054-H	CERAMIC DISC 270PF+-10% 50V
CP1026	H-0239-054-H	CERAMIC DISC 270PF+-10% 50V
CP1027	H-0239-053-H	LINE FILTER
CP1028	H-0239-057-H	CERAMIC DISC 47PF+-10% 50V
CP1029	H-0239-054-H	CERAMIC DISC 270PF+-10% 50V
CP1030	H-0239-054-H	CERAMIC DISC 270PF+-10% 50V
CP1031	H-0239-054-H	CERAMIC DISC 270PF+-10% 50V
CP1033	H-0239-057-H	CERAMIC DISC 47PF+-10% 50V
CP1034	H-0239-057-H	CERAMIC DISC 47PF+-10% 50V
CP1035	H-0239-057-H	CERAMIC DISC 47PF+-10% 50V
CP1036	H-0239-057-H	CERAMIC DISC 47PF+-10% 50V
CP1037	H-0239-053-H	LINE FILTER
CP1038	H-5163-701-H	LOW PASS FILTER
CP1501	H-5163-204-H	COIL (WG,AEP)
DG 701	H-5315-031-H	DISPLAY
⚠ F 850	1-532-078-00	FUSE 1A
⚠ F 851	H-5721-064-H	FUSE 2.5A
⚠ F 852	1-532-259-00	FUSE 1.6A
⚠ F 853	1-532-235-00	FUSE 315MA
⚠ F 855	H-5720-171-H	FUSE 3.5MA
IR 701	H-5477-545-H	MODULE IR
J 701	H-5673-763-H	MINI JACK
J3701	H-5694-691-H	SOCKET
J3702	H-5671-891-H	MINI JACK
J3703	H-5671-891-H	MINI JACK
LV 701	H-5317-055-H	PWB ASSY LEVEL INDICATOR
QF 801	H-5721-941-H	IC PROTECTOR
QF 802	H-5721-941-H	IC PROTECTOR
S 141	H-5635-321-H	SWITCH
S 142	H-5635-321-H	SWITCH
S 701	1-570-313-11	SWITCH
S 702	1-570-313-11	SWITCH
S 703	1-570-313-11	SWITCH
S 704	1-570-313-11	SWITCH
S 705	1-570-313-11	SWITCH
S 706	1-570-313-11	SWITCH
S 707	1-570-313-11	SWITCH
S 710	1-570-313-11	SWITCH
S 711	1-570-313-11	SWITCH
S 712	1-570-313-11	SWITCH
S 713	1-570-313-11	SWITCH
S 714	1-570-313-11	SWITCH
S 715	1-570-313-11	SWITCH
S 716	1-570-313-11	SWITCH
S 717	1-570-313-11	SWITCH
S 718	1-570-313-11	SWITCH
S 719	1-570-313-11	SWITCH (WG,AEP)
S 722	1-570-313-11	SWITCH
S 723	1-570-313-11	SWITCH
S 724	1-570-313-11	SWITCH
S 725	1-570-313-11	SWITCH
S 726	1-570-313-11	SWITCH
S 727	1-570-313-11	SWITCH
S 728	1-570-313-11	SWITCH
S 733	1-570-313-11	SWITCH
S 737	1-570-313-11	SWITCH
S 751	1-570-313-11	SWITCH
S 752	1-570-313-11	SWITCH
S 755	1-570-313-11	SWITCH
S 756	1-570-313-11	SWITCH
S 757	1-570-313-11	SWITCH
S 758	1-570-313-11	SWITCH
S1501	H-5622-562-H	SWITCH
S1502	H-5622-562-H	SWITCH
S3701	H-5622-031-H	SWITCH

SYMBOL-NO	P-NO	DESCRIPTION

ELECTRICAL PARTS LIST (AEP)

SYMBOL-NO	P-NO	DESCRIPTION
		CAPACITORS
C 201	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C 202	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C 203	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C 204	1-162-293-31	CERAMIC DISC 820PF+-10% 50V
C 205	1-162-211-31	CERAMIC DISC 33PF+-50% 50V
C 207	1-161-494-00	CERAMIC DISC 0.022UF+80-20% 25V
C 208	1-162-217-31	CERAMIC DISC 56PF+-50% 50V
C 211	1-162-209-31	CERAMIC DISC 27PF+-50% 50V
C 216	1-161-494-00	CERAMIC DISC 0.022UF+80-20% 25V
C 223	1-162-282-31	CERAMIC DISC 100PF+-10% 50V
C 225	1-126-320-11	ELECTROLYTIC 10UF 16V
C 228	1-161-494-00	CERAMIC DISC 0.022UF+80-20% 25V
C 230	1-161-494-00	CERAMIC DISC 0.022UF+80-20% 25V
C 233	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C 236	1-102-980-00	CERAMIC DISC 270PF+-5% 50V
C 242	1-126-094-11	ELECTROLYTIC 4.7UF 35V
C 243	1-126-161-11	ELECTROLYTIC 2.2UF 50V
C 308	1-102-980-00	CERAMIC DISC 270PF+-5% 50V
C 309	1-162-213-31	CERAMIC DISC 39PF+-50% 50V
C 310	1-162-205-31	CERAMIC DISC 18PF+-5% 50V
C 313	1-162-292-31	CERAMIC DISC 680PF+-10% 50V
C 314	1-162-207-31	CERAMIC DISC 22PF+-5% 50V
C 316	1-162-217-31	CERAMIC DISC 56PF+-50% 50V
C 318	1-162-213-31	CERAMIC DISC 39PF+-50% 50V
C 319	1-101-361-00	CERAMIC DISC 150PF+-5% 50V
C 351	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C 352	1-162-219-31	CERAMIC DISC 68PF+-50% 50V (WG,AEP)
C 355	1-161-494-00	CERAMIC DISC 0.022UF+80-20% 25V
C 357	1-161-494-00	CERAMIC DISC 0.022UF+80-20% 25V
C 402L	1-124-465-00	ELECTROLYTIC 0.47UF 50V
C 409L	1-162-199-31	CERAMIC DISC 10PF+-5% 50V
C 409R	1-162-199-31	CERAMIC DISC 10PF+-5% 50V
C 411L	1-126-345-11	ELECTROLYTIC 47UF 6.3V
C 413	1-124-438-00	ELECTROLYTIC 1UF 50V
C 415L	1-124-438-00	ELECTROLYTIC 1UF 50V
C 416R	1-126-157-11	ELECTROLYTIC 10UF 16V
C 419	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C 420	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C 421	1-126-345-00	ELECTROLYTIC 47UF 6.3V
C 422	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C 430	1-124-438-00	ELECTROLYTIC 1UF 50V
C 431L	1-124-465-00	ELECTROLYTIC 0.47UF 50V
C 436R	1-126-157-11	ELECTROLYTIC 10UF 16V
C 503	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C 504	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C 510	1-161-494-00	CERAMIC DISC 0.022UF+80-20% 25V
C 512	1-162-292-31	CERAMIC DISC 680PF+-10% 50V
C 516	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C 524L	1-102-115-00	CERAMIC DISC 560PF+-5% 50V
C 524R	1-102-115-00	CERAMIC DISC 560PF+-5% 50V
C 526L	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C 526R	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C 527	1-161-494-00	CERAMIC DISC 0.022UF+80-20% 25V
C 528L	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C 528R	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C 531	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C 534	1-162-288-31	CERAMIC DISC 330PF+-10% 50V
C 536	1-124-438-00	ELECTROLYTIC 1UF 50V
C 539	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C 542	1-126-157-11	ELECTROLYTIC 10UF 16V
C 547	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C 549	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C 551	1-162-292-31	CERAMIC DISC 680PF+-10% 50V
C 553	1-161-494-00	CERAMIC DISC 0.022UF+80-20% 25V
C 557	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C 558	1-161-494-00	CERAMIC DISC 0.022UF+80-20% 25V
C 560	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C 561L	1-126-157-11	ELECTROLYTIC 10UF 16V
C 561R	1-126-157-11	ELECTROLYTIC 10UF 16V
C 565	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C 568L	1-162-211-31	CERAMIC DISC 33PF+-50% 50V
C 568R	1-162-211-31	CERAMIC DISC 33PF+-50% 50V
C 571	1-102-115-00	CERAMIC DISC 560PF+-5% 50V
C 572	1-162-282-31	CERAMIC DISC 100PF+-10% 50V
C 573	1-162-294-31	CERAMIC DISC 1000PF+-10% 50V
C 574	1-162-294-31	CERAMIC DISC 1000PF+-10% 50V
C 575	1-162-294-31	CERAMIC DISC 1000PF+-10% 50V
C 576	1-162-294-31	CERAMIC DISC 1000PF+-10% 50V
C 608	1-161-494-00	CERAMIC DISC 0.022UF+80-20% 25V
C 613	1-162-294-31	CERAMIC DISC 1000PF+-10% 50V
C 614	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C 617	1-161-494-00	CERAMIC DISC 0.022UF+80-20% 25V
C 618	1-161-374-11	CERAMIC DISC 1000PF+-20% 50V
C 623	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C 624	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C 625	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C 632	1-161-377-00	CERAMIC DISC 4700PF+-20% 25V
C 633	1-161-377-00	CERAMIC DISC 4700PF+-20% 25V
C 634	1-161-377-00	CERAMIC DISC 4700PF+-20% 25V
C 635	1-161-377-00	CERAMIC DISC 4700PF+-20% 25V
C 643	1-126-157-11	ELECTROLYTIC 10UF 16V
C 653	1-161-374-11	CERAMIC DISC 1500PF+-20% 50V
C 701	1-125-390-11	ELECTROLTIC 0.047F 5.5V
C 703	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C 704	1-161-494-00	CERAMIC DISC 0.022UF+80-20% 25V
C 705	1-161-494-00	CERAMIC DISC 0.022UF+80-20% 25V
C 709	1-126-162-11	CAPACITOR ELECTROLYTIC 3.3MF 50V
C 711	1-126-345-11	ELECTROLYTIC 47UF 6.3V
C 713	1-124-465-00	ELECTROLYTIC 0.47UF 50V
C 714	1-124-463-00	ELECTROLYTIC 0.1UF 50V
C 715	1-126-345-11	ELECTROLYTIC 47UF 6.3V
C 716	H-5058-562-H	TRIMMER 22PF (WG,AEP)
C 718	1-124-635-00	ELECTROLYTIC 220UF 6.3V
C 771	1-124-234-00	ELECTROLYTIC 22UF 16V
C 772	1-161-494-00	CERAMIC DISC 22000PF+80-20% 25V
C 773	1-126-157-11	ELECTROLYTIC 10UF 16V
C 774	1-161-494-00	CERAMIC DISC 0.022UF+80-20% 25V
C 808	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V(WG,AEP)
C 809	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V(WG,AEP)
C 810	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V(WG,AEP)
C 813	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V(WG,AEP)
C 820	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V(WG,AEP)
C 821	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V(WG,AEP)
C 822	1-162-282-31	CERAMIC DISC 100PF+-10% 50V
C 830	1-161-379-00	CERAMIC DISC 0.01UF (AEP)
C 832	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C 834	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C 836	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C 838	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C 876	1-125-334-00	ELECTROLYTIC 4700UF 35V
C 880	1-126-169-11	ELECTROLYTIC 3300UF 16V
C 884	1-126-183-11	ELECTROLYTIC 1000UF 16V
C 902	1-161-494-00	CERAMIC DISC 0.022UF+80-20% 25V
C 904	1-162-211-31	CERAMIC DISC 33PF+-50% 50V
C 905	1-162-211-31	CERAMIC DISC 33PF+-50% 50V
C 906	1-161-494-00	CERAMIC DISC 0.022UF+80-20% 25V
C 907	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C 908	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C 912	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C 913	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C 915	1-161-494-00	CERAMIC DISC 0.022UF+80-20% 25V
C 916	1-161-494-00	CERAMIC DISC 0.022UF+80-20% 25V
C 918	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C 921	1-162-282-31	CERAMIC DISC 100PF+-10% 50V
C 922	1-162-282-31	CERAMIC DISC 100PF+-10% 50V
C 924	1-161-494-00	CERAMIC DISC 0.022UF+80-20% 25V
C1001	1-124-288-00	ELECTROLYTIC 22UF 10V
C1002	1-124-963-11	ELECTROLYTIC 33UF 16V
C1006	1-126-094-11	ELECTROLYTIC 10UF 35V
C1011	1-126-094-11	ELECTROLYTIC 10UF 35V
C1014	1-124-463-00	ELECTROLYTIC 0.1UF 50V
C1016	1-124-477-11	ELECTROLYTIC 47UF 25V (WG,AEP)
C1017	1-124-438-00	ELECTROLYTIC 1UF 50V
C1018	1-124-465-00	ELECTROLYTIC 0.47UF 50V
C1025	1-124-438-00	ELECTROLYTIC 1UF 50V
C1027	1-124-477-11	ELECTROLYTIC 47UF 25V
C1028	1-124-438-00	ELECTROLYTIC 1UF 50V
C1036	1-124-472-00	ELECTROLYTIC 470UF 10V
C1037	1-124-499-11	ELECTROLYTIC 1UF 50V
C1040	1-126-157-11	ELECTROLYTIC 10UF 16V
C1041	1-124-477-11	ELECTROLYTIC 47UF 25V
C1043	1-124-477-11	ELECTROLYTIC 47UF 25V
C1045	1-124-438-00	ELECTROLYTIC 1UF 50V

SYMBOL-NO	P-NO	DESCRIPTION
C1047	1-124-247-00	ELECTROLYTIC 10UF 35V
C1051	1-124-247-00	ELECTROLYTIC 10UF 35V
C1052	1-124-247-00	ELECTROLYTIC 10UF 35V
C1056	1-124-438-00	ELECTROLYTIC 1UF 50V
C1057	1-124-247-00	ELECTROLYTIC 10UF 35V
C1061	1-124-477-11	ELECTROLYTIC 47UF 25V
C1062	1-124-438-00	ELECTROLYTIC 1UF 50V
C1068	1-124-247-00	ELECTROLYTIC 10UF 35V
C1069	1-124-925-11	ELECTROLYTIC 2.2UF 100V
C1070	1-124-477-11	ELECTROLYTIC 47UF 25V
C1071	1-124-477-11	ELECTROLYTIC 47UF 25V
C1072	1-124-477-11	ELECTROLYTIC 47UF 25V
C1073	1-124-438-00	ELECTROLYTIC 1UF 50V
C1074	1-124-465-00	ELECTROLYTIC 0.47UF 50V
C1080	1-124-589-11	ELECTROLYTIC 47UF 16V
C1084	1-124-438-00	ELECTROLYTIC 1UF 50V
C1086	1-124-477-11	ELECTROLYTIC 47UF 25V
C1088	1-124-438-00	ELECTROLYTIC 1UF 50V
C1097	1-124-247-00	ELECTROLYTIC 10UF 35V
C1103	1-124-247-00	ELECTROLYTIC 10UF 35V
C1106	1-124-584-00	ELECTROLYTIC 100UF 10V
C1108	1-124-584-00	ELECTROLYTIC 100UF 10V
C1110	1-124-584-00	ELECTROLYTIC 100UF 10V
C1113	1-124-584-00	ELECTROLYTIC 100UF 10V
C1115	1-124-471-00	ELECTROLYTIC 1000UF 6.3V
C1116	1-124-589-11	ELECTROLYTIC 47UF 16V
C1123	1-124-438-00	ELECTROLYTIC 1UF 50V
C1128	1-124-478-11	ELECTROLYTIC 100UF 25V
C1134	1-124-589-11	ELECTROLYTIC 47UF 16V
C1137	1-124-584-00	ELECTROLYTIC 100UF 10V
C1139	1-124-963-11	ELECTROLYTIC 33UF 16V
C1140	1-126-094-11	ELECTROLYTIC 4.7UF 35V
C1141	1-124-438-00	ELECTROLYTIC 1UF 50V
C1142	1-126-157-11	ELECTROLYTIC 10UF 16V
C1145	1-126-320-11	ELECTROLYTIC 10UF 16V
C1146	1-124-472-11	ELECTROLYTIC 470UF 10V
C1150	1-124-472-11	ELECTROLYTIC 470UF 10V
C1153	1-126-335-11	ELECTROLYTIC 220UF 10V
C1157	1-126-335-11	ELECTROLYTIC 220UF 10V
C1168	1-124-584-00	ELECTROLYTIC 100UF 10V (WG,AEP)
C1169	1-124-472-11	ELECTROLYTIC 470UF 10V (WG,AEP)
C1179	1-124-438-00	ELECTROLYTIC 1UF 50V
C1180	1-124-438-00	ELECTROLYTIC 1UF 50V
C1404	1-161-494-00	CERAMIC DISC 0.022UF+80-20% 25V
C1406	1-161-494-00	CERAMIC DISC 0.022UF+80-20% 25V
C1407	1-162-199-31	CERAMIC DISC 10PF+-5% 50V
C1408	1-162-199-31	CERAMIC DISC 10PF+-5% 50V
C1411	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C1412	1-161-379-00	CERAMIC DISC 0.01UF+-20% 25V
C1416	1-161-375-00	CERAMIC DISC 2200PF+-20% 50V
C1421	1-162-282-31	CERAMIC DISC 100PF+-10% 50V
C1422	1-162-293-31	CERAMIC DISC 820PF+-10% 50V
C1424	1-161-494-00	CERAMIC DISC 0.022UF+80-20% 25V
C1425	1-124-438-00	ELECTROLYTIC 1UF 50V
C1433	1-162-205-31	CERAMIC DISC 18PF+-5% 50V
C1434	1-162-205-31	CERAMIC DISC 18PF+-5% 50V
C1501	1-162-294-31	CERAMIC DISC 1000PF+-10% 50V(WG,AEP)
C1502	1-162-294-31	CERAMIC DISC 1000PF+-10% 50V(WG,AEP)
C1503	1-162-294-31	CERAMIC DISC 1000PF+-10% 50V(WG,AEP)
C1504	1-162-294-31	CERAMIC DISC 1000PF+-10% 50V(WG,AEP)
C1517	1-161-494-00	CERAMIC DISC 0.022UF+80-20% 25V
C1524	1-161-494-00	CERAMIC DISC 0.022UF+80-20% 25V
C1528	1-161-494-00	CERAMIC DISC 0.022UF+80-20% 25V
C1537	1-161-494-00	CERAMIC DISC 0.022UF+80-20% 25V
C1540	1-161-494-00	CERAMIC DISC 0.022UF+80-20% 25V
C1631	1-161-494-00	CERAMIC DISC 0.022UF+80-20% 25V
C1632	1-162-207-31	CERAMIC DISC 22PF+-5% 50V
C1633	1-162-207-31	CERAMIC DISC 22PF+-5% 50V
C1654	1-161-494-00	CERAMIC DISC 0.022UF+80-20% 25V
C1801	1-162-211-31	CERAMIC DISC 33PF+-50% 50V (AEP)
C1802	1-162-217-31	CERAMIC DISC 56PF+-50% 50V (AEP)
C1803	H-0256-296-H	ELECTROLYTIC 2200UF 16V (AEP)
C1807	H-0890-009-H	CERAMIC DISC 12PF+-5% 50V (AEP)
C1808	H-0890-031-H	CERAMIC DISC 470PF+-10% 50V (AEP)
C1809	1-161-379-00	CERAMIC DISC 0.01UF+-20% 16V (AEP)
C1822	H-0890-009-H	CERAMIC DISC 12PF+-5% 50V (AEP)
C1824	H-0890-031-H	CERAMIC DISC 470PF+-10% 50V (AEP)
C1825	1-162-217-31	CERAMIC DISC 56PF+-50% 50V (AEP)

SYMBOL-NO	P-NO	DESCRIPTION
C1828	H-0890-031-H	CERAMIC DISC 470PF+-10% 50V (AEP)
C1829	H-0890-009-H	CERAMIC DISC 12PF+-5% 50V (AEP)
C1832	1-162-211-31	CERAMIC DISC 33PF+-50% 50V (AEP)
C1844	1-161-494-00	CERAMIC DISC 0.022UF+80-20% 25V(AEP)
C1845	1-161-494-00	CERAMIC DISC 0.022UF+80-20% 25V(AEP)
C2701	1-161-494-00	CERAMIC DISC 0.022UF+80-20% 25V
C2705	1-161-494-00	CERAMIC DISC 0.022UF+80-20% 25V
C2706	1-124-477-11	ELECTROLYTIC 47UF 6.3V
C2708	H-0890-011-H	CERAMIC DISC 15PF+-5% 50V
C2709	H-0890-011-H	CERAMIC DISC 15PF+-5% 50V
C3701	1-161-379-00	CERAMIC DISC 0.01UF+-20% 16V
C3703	1-161-379-00	CERAMIC DISC 0.01UF+-20% 16V
C3705	1-161-379-00	CERAMIC DISC 0.01UF+-20% 16V
C3707	1-161-494-00	CERAMIC DISC 0.022UF+80-20% 25V
CT1001	H-5058-482-H	TRIMMER 90PF
CT1002	H-5058-482-H	TRIMMER 90PF
		RESISTORS
R 659	H-0101-701-H	METAL FILM 0.47OHM+-5% 1/2W
R 837	H-0170-486-H	FUSE RESISTOR 22OHM+-5% 1/2W(WG,AEP)
RT 301	1-228-910-00	SEMI VARIABLE 4.7KOHM
RT 351	1-228-989-00	SEMI VARIABLE 470OHM (WG,AEP)
RT 501L	1-228-996-00	SEMI VARIABLE 47KOHM
RT 501R	1-228-996-00	SEMI VARIABLE 47KOHM
RT 503	1-228-996-00	SEMI VARIABLE 47KOHM
RT 504	1-228-997-00	SEMI VARIABLE 100KOHM
RT 505	1-228-990-00	SEMI VARIABLE 1KOHM
RT 601	1-228-996-00	SEMI VARIABLE 47KOHM
RT 602	1-228-999-00	SEMI VARIABLE 470KOHM
RT 605	1-228-999-00	SEMI VARIABLE 470KOHM
RT 606	1-228-999-00	SEMI VARIABLE 470KOHM
RT1002	1-230-523-11	SEMI VARIABLE 10KOHM
RT1003	1-230-526-11	RESISTOR SEMI VARIABLE 47KOHM
RT1005	1-230-522-11	SEMI VARIABLE 4.7KOHM
RT1006	1-230-523-11	SEMI VARIABLE 10KOHM
RT1007	1-230-523-11	SEMI VARIABLE 10KOHM
RT1008	1-230-522-11	SEMI VARIABLE 4.7KOHM
RT1009	1-230-526-11	RESISTOR SEMI VARIABLE 47KOHM
RT1010	1-230-526-11	RESISTOR SEMI VARIABLE 47KOHM
RT1011	1-230-522-11	SEMI VARIABLE 4.7KOHM
RT1012	1-230-521-11	RESISTOR SEMI VARIABLE 2.2KOHM
RT1013	1-230-521-11	RESISTOR SEMI VARIABLE 2.2KOHM
RT1401	1-228-990-00	SEMI VARIABLE 1KOHM
RT1801	1-228-998-00	SEMI VARIABLE 220KOHM (AEP)
RT1802	1-228-999-00	SEMI VARIABLE 470KOHM (AEP)
RT1803	1-228-994-00	SEMI VARIABLE 10KOHM (AEP)
RT1804	1-228-994-00	SEMI VARIABLE 10KOHM (AEP)
RT1807	1-228-996-00	SEMI VARIABLE 47KOHM (AEP)
RV 501	H-5009-147-H	VARIABLE 50KOHM
RV 502	H-5009-147-H	VARIABLE 50KOHM
RV 701	H-5009-123-H	VARIABLE 10KOHM
RV 703	H-5009-127-H	SEMI VARIABLE 500KOHM
RV 704	H-5009-123-H	VARIABLE 10KOHM
RV 705	H-5009-123-H	VARIABLE 10KOHM
		SEMI-CONDUCTORS
D 141	8-719-911-19	LED 1SS119
D 201	8-719-911-19	DIODE 1SS119
D 202	8-719-911-19	DIODE 1SS119
D 203	8-719-911-19	DIODE 1SS119
D 204	8-719-911-19	DIODE 1SS119
D 205	8-719-911-19	DIODE 1SS119
D 206	8-719-911-19	DIODE 1SS119
D 207	8-719-911-19	DIODE 1SS119
D 208	8-719-911-19	DIODE 1SS119
D 209	8-719-911-19	DIODE 1SS119
D 301	8-719-911-19	DIODE 1SS119
D 302	8-719-911-19	DIODE 1SS119
D 303	8-719-911-19	DIODE 1SS119
D 401	8-719-911-19	DIODE 1SS119
D 402	8-719-911-19	DIODE 1SS119
D 501	8-719-911-19	DIODE 1SS119
D 503	8-719-911-19	DIODE 1SS119
D 504	8-719-911-19	DIODE 1SS119
D 506L	8-719-911-19	DIODE 1SS119
D 506R	8-719-911-19	DIODE 1SS119

SYMBOL-NO	P-NO	DESCRIPTION
D 507	8-719-911-19	DIODE 1SS119
D 508	8-719-911-19	DIODE 1SS119
D 509	8-719-911-19	DIODE 1SS119
D 510	8-719-911-19	DIODE 1SS119
D 512	8-719-911-19	DIODE 1SS119
D 513	8-719-911-19	DIODE 1SS119
D 601	8-719-911-19	DIODE 1SS119
D 602	8-719-911-19	DIODE 1SS119
D 603	8-719-911-19	DIODE 1SS119
D 604	8-719-911-19	DIODE 1SS119
D 605	8-719-911-19	DIODE 1SS119
D 607	8-719-911-19	DIODE 1SS119
D 608	8-719-911-19	DIODE 1SS119
D 609	8-719-911-19	DIODE 1SS119
D 610	8-719-911-19	DIODE 1SS119
D 612	8-719-911-19	DIODE 1SS119
D 615	8-719-911-19	DIODE 1SS119
D 616	8-719-911-19	DIODE 1SS119
D 617	8-719-911-19	DIODE 1SS119
D 618	8-719-911-19	DIODE 1SS119
D 619	8-719-911-19	DIODE 1SS119
D 620	8-719-911-19	DIODE 1SS119
D 627	8-719-911-19	DIODE 1SS119
D 636	8-719-911-19	DIODE 1SS119
D 701	8-719-911-19	DIODE 1SS119
D 702	8-719-911-19	DIODE 1SS119
D 703	8-719-911-19	DIODE 1SS119
D 704	8-719-911-19	DIODE 1SS119
D 705	8-719-911-19	DIODE 1SS119
D 706	8-719-911-19	DIODE 1SS119
D 707	8-719-911-19	DIODE 1SS119
D 708	8-719-911-19	DIODE 1SS119
D 709	8-719-911-19	DIODE 1SS119
D 711	8-719-911-19	DIODE 1SS119
D 713	8-719-911-19	DIODE 1SS119
D 714	8-719-911-19	DIODE 1SS119
D 715	8-719-911-19	DIODE 1SS119
D 716	8-719-911-19	DIODE 1SS119
D 718	8-719-911-19	DIODE 1SS119
D 719	8-719-911-19	DIODE 1SS119
D 721	8-719-911-19	DIODE 1SS119
D 722	8-719-911-19	DIODE 1SS119
D 726	8-719-911-19	DIODE 1SS119
D 734	8-719-911-19	DIODE 1SS119
D 735	8-719-911-19	DIODE 1SS119
D 736	8-719-911-19	DIODE 1SS119
D 752	8-719-300-82	LED SEL-2213C
D 753	8-719-300-82	LED SEL-2213C
D 754	8-719-300-82	LED SEL-2213C (WG,AEP)
D 755	8-719-300-82	LED SEL-2213C (WG,AEP)
D 756	H-5381-213-H	LED SEL-2813A
D 757	8-719-300-82	LED SEL-2213C
D 758	8-719-301-46	LED SEL-2413E
D 760	8-719-911-19	DIODE 1SS119
D 761	8-719-911-19	DIODE 1SS119
D 801	8-719-911-19	DIODE 1SS119
D 802	8-719-200-02	DIODE 10E-2 (AEP)
D 803	8-719-911-19	DIODE 1SS119 (AEP)
D 804	8-719-911-19	DIODE 1SS119 (AEP)
D 805	H-5339-171-H	DIODE 1SS130 (AEP)
D 806	H-5339-171-H	DIODE 1SS130 (AEP)
⚠ D 851	8-719-500-55	DIODE D3SBA10
⚠ D 852	8-719-500-04	DIODE S1WB40
⚠ D 853	8-719-500-55	DIODE D3SBA10
D 854	8-719-911-19	DIODE 1SS119
D 855	8-719-911-19	DIODE 1SS119
⚠ D 856	8-719-200-02	DIODE 10E-2
⚠ D 857	8-719-200-02	DIODE 10E-2
⚠ D 858	8-719-200-02	DIODE 10E-2
⚠ D 859	8-719-200-02	DIODE 10E-2
D 860	8-719-911-19	DIODE 1SS119
D 902	8-719-911-19	DIODE 1SS119
D 903	8-719-911-19	DIODE 1SS119
D 904	8-719-911-19	DIODE 1SS119
D 908	8-719-911-19	DIODE 1SS119
D 909	8-719-911-19	DIODE 1SS119
D 910	8-719-911-19	DIODE 1SS119
D 913	8-719-911-19	DIODE 1SS119

SYMBOL-NO	P-NO	DESCRIPTION
D 914	8-719-911-19	DIODE 1SS119
D 915	8-719-911-19	DIODE 1SS119
D 916	8-719-911-19	DIODE 1SS119
D 917	8-719-911-19	DIODE 1SS119
D 919	8-719-911-19	DIODE 1SS119
D 920	8-719-911-19	DIODE 1SS119
D1001	H-5339-321-H	DIODE MA714
D1002	8-719-914-43	DIODE DAN202K
D1004	H-5339-321-H	DIODE MA714
D1005	8-719-914-43	DIODE DAN202K
D1006	8-719-914-43	DIODE DAN202K
D1007	8-719-914-43	DIODE DAN202K
D1401	8-719-911-19	DIODE 1SS119
D1501	8-719-911-19	DIODE 1SS119
D1502	8-719-911-19	DIODE 1SS119
D1503	8-719-911-19	DIODE 1SS119
D1504	8-719-911-19	DIODE 1SS119
D1801	8-719-911-19	DIODE 1SS119 (AEP)
D1802	8-719-911-19	DIODE 1SS119 (AEP)
D2701	8-719-911-19	DIODE 1SS119
D2705	8-719-911-19	DIODE 1SS119
D2706	8-719-911-19	DIODE 1SS119
D2707	8-719-911-19	DIODE 1SS119
D3701	8-719-911-19	DIODE 1SS119
D3702	8-719-911-19	DIODE 1SS119
D3703	8-719-911-19	DIODE 1SS119
D3704	8-719-911-19	DIODE 1SS119
D3705	8-719-911-19	DIODE 1SS119
D3706	8-719-911-19	DIODE 1SS119
D3707	8-719-911-19	DIODE 1SS119
D3708	8-719-911-19	DIODE 1SS119
D3709	8-719-911-19	DIODE 1SS119
D3710	8-719-911-19	DIODE 1SS119
D3714	8-719-911-19	DIODE 1SS119
D3715	8-719-911-19	DIODE 1SS119
IC 141	H-5391-282-H	IC DN6851
IC 142	H-5391-282-H	IC DN6851
IC 201	H-5385-087-H	MODULE HT4847F
IC 202	H-5385-093-H	MODULE HT4848B
IC 203	H-5384-632-H	MODULE HT4664A
IC 204	H-1387-122-H	MODULE HES8020A
IC 301	H-5385-481-H	MODULE HT4809
IC 351	H-5366-641-H	IC BA7025L (WG,AEP)
IC 401	H-5300-671-H	IC BA7720S
IC 402	8-759-605-46	IC M51131L
IC 403	8-759-600-02	IC M5218L
IC 404	H-5300-771-H	IC M51659L
IC 405	8-759-600-02	IC M5218L
IC 451	8-759-600-02	IC M5218L
IC 452	8-759-600-02	IC M5218L
IC 501	H-5300-861-H	IC HA12117NT
IC 502	H-5300-641-H	IC BA7755
IC 503	H-5300-871-H	IC HA12118NT
IC 504	8-759-145-58	IC UPC4558C
IC 507L	8-759-602-48	IC M5201L
IC 507R	8-759-602-48	IC M5201L
IC 509	8-759-145-58	IC UPC4558C
IC 601	H-1340-011-H	IC HD49716NT
IC 602	H-5300-821-H	IC M54874P
IC 603	H-5355-584-H	IC HA13403
IC 604	H-1387-231-H	MODULE BX7506
IC 605	H-5361-531-H	IC MSM 5258RS
IC 606	8-759-800-81	IC LA7016
IC 701	H-5302-351-H	IC LA7016 (WG,AEP)
IC 702	8-759-603-62	IC M58630P
IC 703	H-5361-942-H	IC S-8053ALB
IC 771	8-759-600-02	IC M5218L
IC 801	H-5367-201-H	IC UPC1484CA (WG,AEP)
IC 802	8-759-171-05	IC UPC1484CA (WG,AEP)
IC 803	H-5367-221-H	IC BA6993 (WG,AEP)
IC 851	H-5300-452-H	IC STK5372H
IC 852	8-759-802-18	IC L780S05
IC 853	H-1341-651-H	IC M5279L06
IC 901	H-5302-741-H	IC HD614088SC73
IC 902	H-5300-794-H	IC BA6209U4
IC 903	H-1387-191-H	MODULE HES8029
IC 904	H-1388-041-H	MODULE BX7570
IC1001	H-5304-921-H	IC TC74HC4053AF

SYMBOL-NO	P-NO	DESCRIPTION
IC1002	H-5304-571-H	IC HA11535MP
IC1003	8-759-701-96	IC NJM2217L
IC1004	8-759-603-53	IC M51271SP
IC1005	8-759-603-56	IC M51272FP
IC1006	8-759-603-53	IC M51271SP
IC1007	8-759-605-23	IC M65011FP
IC1008	H-5305-291-H	IC M50747FP
IC1009	8-759-205-12	IC TC74HC157M
IC1010	8-759-205-12	IC TC74HC157M
IC1011	8-759-605-14	IC M52678P
IC1012	8-759-605-14	IC M52678P
IC1013	8-759-205-11	IC TC74HC153M
IC1014	8-759-205-11	IC TC74HC153M
IC1015	8-759-205-11	IC TC74HC153M
IC1016	H-5301-491-H	IC M5M4C500L
IC1017	H-5301-491-H	IC M5M4C500L
IC1018	H-5301-491-H	IC M5M4C500L
IC1019	8-759-205-11	IC TC74HC153M
IC1020	8-759-205-11	IC TC74HC153M
IC1021	8-759-205-11	IC TC74HC153M
IC1022	8-759-205-12	IC TC74HC157M
IC1023	8-759-205-12	IC TC74HC157M
IC1024	8-759-205-12	IC TC74HC157M
IC1025	8-759-605-13	IC M52679P
IC1026	8-759-605-13	IC M52679P
IC1027	8-759-605-13	IC M52679P
IC1028	H-5304-911-H	IC UPD74HC221AG
IC1029	H-5386-063-H	MODULE HT4683B
IC1030	H-5301-011-H	IC HD14053FP
IC1031	H-5300-781-H	IC M51489L
IC1032	H-5301-943-H	IC S-8054ALR
IC1401	H-5301-254-H	IC M50455-003SP
IC1402	H-1340-021-H	IC NJM2229S
IC1501	8-759-800-81	IC LA7016
IC1502	8-759-800-81	IC LA7016
IC1503	8-759-800-81	IC LA7016
IC1504	8-759-800-81	IC LA7016
IC1801	H-5366-671-H	IC IR-3P02 (WG,AEP)
IC1802	8-759-923-90	IC BA4560 (WG,AEP)
IC1803	8-759-800-00	IC LA1150N (WG,AEP)
IC2701	H-5306-462-H	IC HD407400
IC3701	H-5302-691-H	IC MSM80C51BH
IC3702	H-1341-261-H	IC PST524D2
IC3703	8-759-604-02	IC M5278L56
Q 141	H-5324-661-H	TRANSISTOR PT-483F1
Q 142	H-5324-661-H	TRANSISTOR PT-483F1
Q 201	H-1320-031-H	TRANSISTOR 2SC3391C
Q 202	8-729-178-54	TRANSISTOR 2SC2785
Q 203	8-729-178-54	TRANSISTOR 2SC2785
Q 204	8-729-178-54	TRANSISTOR 2SC2785
Q 301	H-5324-641-H	TRANSISTOR 2SA1374C
Q 401L	8-729-178-54	TRANSISTOR 2SC2785
Q 401R	8-729-178-54	TRANSISTOR 2SC2785
Q 402	8-729-178-54	TRANSISTOR 2SC2785
Q 403L	8-729-178-43	TRANSISTER 2SC2784
Q 403R	8-729-178-43	TRANSISTER 2SC2784
Q 404	8-729-900-65	TRANSISTOR DTA144ES
Q 501	8-729-900-89	TRANSISTOR DTC144ES
Q 502	8-729-195-23	TRANSISTOR 2SA952
Q 503	8-729-178-54	TRANSISTOR 2SC2785
Q 504	8-729-900-89	TRANSISTOR DTC144ES
Q 505L	8-729-178-43	TRANSISTER 2SC2784E
Q 505R	8-729-178-43	TRANSISTER 2SC2784E
Q 506	8-729-900-65	TRANSISTOR DTA144ES
Q 507	8-729-900-89	TRANSISTOR DTA144ES
Q 511	8-729-900-89	TRANSISTOR DTA144ES
Q 512	8-729-900-89	TRANSISTOR DTA144ES
Q 516	8-729-384-48	TRANSISTOR 2SA844
Q 517	8-729-177-32	TRANSISTOR 2SD773
Q 518	8-729-384-48	TRANSISTOR 2SA844
Q 519	8-729-178-43	TRANSISTER 2SC2784
Q 520	8-729-900-89	TRANSISTOR DTC144ES
Q 604	8-729-178-54	TRANSISTOR 2SC2785
Q 701	8-729-178-54	TRANSISTOR 2SC2785
Q 702	8-729-178-54	TRANSISTOR 2SC2785
Q 703	8-729-195-23	TRANSISTOR 2SA952
Q 704	8-729-178-54	TRANSISTOR 2SC2785
Q 801	8-729-384-48	TRANSISTOR 2SA844 (WG,AEP)

SYMBOL-NO	P-NO	DESCRIPTION
Q 802	H-5327-031-H	TRANSISTOR 2SA673C (WG,AEP)
Q 803	H-5323-323-H	TRANSISTOR 2SD1251PO
Q 804	8-729-402-12	TRANSISTOR 2SD1276A (WG,AEP)
Q 851	8-729-177-43	TRANSISTOR 2SD774
Q 852	8-729-177-43	TRANSISTOR 2SD774
Q 901	8-729-178-54	TRANSISTER 2SC2785
Q1001	8-729-100-66	TRANSISTOR 2SC1623
Q1002	8-729-100-66	TRANSISTOR 2SC1623
Q1003	8-729-100-76	TRANSISTOR 2SA812
Q1004	8-729-100-76	TRANSISTOR 2SA812
Q1005	8-729-100-66	TRANSISTOR 2SC1623
Q1006	8-729-100-76	TRANSISTOR 2SA812
Q1007	8-729-100-66	TRANSISTOR 2SC1623
Q1008	8-729-100-66	TRANSISTOR 2SC1623
Q1009	8-729-100-66	TRANSISTOR 2SC1623
Q1010	8-729-100-66	TRANSISTOR 2SC1623
Q1012	8-729-100-76	TRANSISTOR 2SA812
Q1014	8-729-100-76	TRANSISTOR 2SA812
Q1015	8-729-100-76	TRANSISTOR 2SA812
Q1016	8-729-100-76	TRANSISTOR 2SA812
Q1017	8-729-100-76	TRANSISTOR 2SA812
Q1018	8-729-100-66	TRANSISTOR 2SC1623
Q1019	8-729-100-66	TRANSISTOR 2SC1623
Q1020	8-729-100-66	TRANSISTOR 2SC1623
Q1021	8-729-100-66	TRANSISTOR 2SC1623
Q1022	8-729-100-66	TRANSISTOR 2SC1623
Q1023	8-729-901-00	TRANSISTOR DTC124EK
Q1024	8-729-100-76	TRANSISTOR 2SA812
Q1025	8-729-100-66	TRANSISTOR 2SC1623
Q1026	8-729-100-76	TRANSISTOR 2SA812
Q1027	8-729-100-76	TRANSISTOR 2SA812
Q1028	8-729-100-76	TRANSISTOR 2SA812
Q1029	8-729-901-05	TRANSISTOR DTA124EK
Q1030	8-729-901-00	TRANSISTOR DTC124EK
Q1031	8-729-100-76	TRANSISTOR 2SA812
Q1032	8-729-100-76	TRANSISTOR 2SA812
Q1034	8-729-924-04	TRANSISTOR FMS2
Q1035	8-729-903-10	TRANSISTOR FMW1
Q1036	8-729-900-36	TRANSISTOR DTC124ES
Q1038	8-729-100-76	TRANSISTOR 2SA812
Q1039	8-729-100-76	TRANSISTOR 2SA812
Q1040	8-729-901-00	TRANSISTOR DTC124EK
Q1041	8-729-900-36	TRANSISTOR DTC124ES
Q1042	8-729-901-00	TRANSISTOR DTC124EK
Q1043	8-729-901-00	TRANSISTOR DTC124EK
Q1044	8-729-901-01	TRANSISTOR DTC144EK
Q1045	8-729-901-01	TRANSISTOR DTC144EK
Q1046	8-729-901-00	TRANSISTOR DTC124EK
Q1047	8-729-901-01	TRANSISTOR DTC144EK
Q1048	8-729-901-66	TRANSISTOR DTA144EK
Q1050	8-729-100-66	TRANSISTOR 2SC1623
Q1052	8-729-901-06	TRANSISTOR DTA144EK
Q1053	8-729-901-06	TRANSISTOR DTA144EK
Q1055	8-729-901-06	TRANSISTOR DTA144EK
Q1191	8-729-901-06	TRANSISTOR DTC144EK
Q1192	8-729-901-06	TRANSISTOR DTC144EK
Q1193	8-729-901-05	TRANSISTOR DTA124EK
Q1194	8-729-901-05	TRANSISTOR DTA124EK
Q1401	8-729-205-02	TRANSISTOR 2SA1150
Q1402	8-729-178-54	TRANSISTOR 2SC2785
Q1403	8-729-178-54	TRANSISTOR 2SC2785
Q1404	8-729-900-36	TRANSISTOR DTC124ES
Q1405	8-729-900-36	TRANSISTOR DTC124ES
Q1407	8-729-178-54	TRANSISTOR 2SC2785
Q1408	8-729-900-89	TRANSISTOR DTC144ES
Q1501	8-729-178-54	TRANSISTOR 2SC2785
Q1530	8-729-205-02	TRANSISTOR 2SA1150
Q1531	8-729-205-02	TRANSISTOR 2SA1150
Q1532	8-729-178-54	TRANSISTOR 2SC2785
Q1580	8-729-178-54	TRANSISTOR 2SC2785 (WG,AEP)
Q1581	8-729-402-12	TRANSISTOR 2SC2785 (WG,AEP)
Q1651	8-729-402-12	TRANSISTOR 2SD1276A
Q1801	8-729-178-54	TRANSISTOR 2SC2785 (AEP)
Q1802	8-729-178-54	TRANSISTOR 2SC2785 (AEP)
Q1803	8-729-178-54	TRANSISTOR 2SC2785 (AEP)
Q1804	8-729-178-54	TRANSISTOR 2SC2785 (AEP)
Q1805	8-729-178-54	TRANSISTOR 2SC2785 (AEP)
Q1806	8-729-178-54	TRANSISTOR 2SC2785 (AEP)

SYMBOL-NO	P-NO	DESCRIPTION
Q3705	8-729-178-54	TRANSISTOR 2SC2785
Q3708	8-729-205-02	TRANSISTOR 2SA1150
Q3711	8-729-205-02	TRANSISTOR 2SA1150
Q3712	8-729-205-02	TRANSISTOR 2SA1150
QR 201	8-729-900-63	TRANSISTOR DTA124ES
QR 202	8-729-900-63	TRANSISTOR DTA124ES
QR 203	8-729-900-63	TRANSISTOR DTA124ES
QR 204	8-729-900-36	TRANSISTOR DTC124ES
QR 301	8-729-900-63	TRANSISTOR DTA124ES
QR 302	8-729-900-63	TRANSISTOR DTA124ES
QR 601	8-729-900-89	TRANSISTOR DTC144ES
QR 602	8-729-900-89	TRANSISTOR DTC144ES
QR 603	8-729-900-89	TRANSISTOR DTC144ES
QR 605	8-729-900-89	TRANSISTOR DTC144ES
QR 608	8-729-900-89	TRANSISTOR DTC144ES
QR 609	8-729-900-89	TRANSISTOR DTC144ES
QR 611	8-729-900-89	TRANSISTOR DTC144ES
QR 701	8-729-900-65	TRANSISTOR DTA144ES (WG,AEP)
QR 702	8-729-900-89	TRANSISTOR DTC144ES
QR 703	8-729-900-89	TRANSISTOR DTC144ES
QR 901	8-729-900-89	TRANSISTOR DTC144ES
QR 902	8-729-900-89	TRANSISTOR DTC144ES
QR1501	8-729-900-65	TRANSISTOR DTA144ES
QR1502	8-729-900-89	TRANSISTOR DTC144ES
QR1801	8-729-900-63	TRANSISTOR DTA124ES (WG,AEP)
QR2701	H-5323-563-H	TRANSISTOR DTC144F
QR3702	8-729-900-89	TRANSISTOR DTC144ES
QR3703	8-729-900-89	TRANSISTOR DTC144ES
QR3704	H-5327-084-H	TRANSISTOR RT1P441S
QR3706	8-729-900-89	TRANSISTOR DTC144ES
QR3707	H-5327-084-H	TRANSISTOR RT1P441S
QR3709	8-729-900-89	TRANSISTOR DTC144ES
QR3710	8-729-900-89	TRANSISTOR DTC144ES
QR3713	8-729-900-89	TRANSISTOR DTC144ES
QR3714	8-729-900-89	TRANSISTOR DTC144ES
QR3715	8-729-900-89	TRANSISTOR DTC144ES
ZD 351	H-5330-394-H	DIODE HZ6A2 (WG,AEP)
ZD 401	8-719-109-89	DIODE RD5.6ES-B2
ZD 402	8-719-109-89	DIODE RD5.6ES-B2
ZD 403	8-719-109-89	DIODE RD5.6ES-B2
ZD 501	8-719-110-08	DIODE RD8.2ES-B2
ZD 502	8-719-110-08	DIODE RD8.2ES-B2
ZD 503	8-719-109-71	DIODE RD3.9ES-B1
ZD 701	8-719-110-13	DIODE RD9.1ES-B2
ZD 702	8-719-109-60	DIODE RD2.7ES-B2
ZD 703	8-719-110-03	DIODE RD7.5ES-B2
ZD 801	8-719-109-71	DIODE RD3.9ES-B1 (WG,AEP)
ZD 802	8-719-110-72	DIODE RD30ES-B2 (WG,AEP)
ZD 803	H-5339-252-H	DIODE HZS5-C2 (WG,AEP)
ZD 804	H-5339-252-H	DIODE HZS5-C2 (WG,AEP)
ZD 805	H-5339-256-H	DIODE HZS30 (WG,AEP)
ZD 851	8-719-110-03	DIODE RD7.5ES-B2
ZD 852	8-719-110-03	DIODE RD7.5ES-B2
ZD 901	8-719-110-18	DIODE RD8.2ES-B2
ZD 902	8-719-109-93	DIODE RD6.2ES-B2
ZD 903	8-719-109-93	DIODE RD6.2ES-B2
ZD1651	8-719-110-44	DIODE RD16ES-B1
ZD3701	8-719-110-41	DIODE RD15ES-B2
ZD3702	8-719-110-41	DIODE RD15ES-B2
ZD3703	8-719-110-41	DIODE RD15ES-B2
ZD3704	8-719-109-51	DIODE RD2.0ES-B2
ZD3705	8-719-110-41	DIODE RD15ES-B2
ZD3706	8-719-110-41	DIODE RD15ES-B2

TRANSFORMERS

T 501	H-5261-352-H	OSC COIL
T 502	H-5261-351-H	COIL,OSC
⚠ T 850	H-5214-052-H	TRANSFORMER,POWER

COILS

L 201	1-408-421-00	CHOKE COIL 100UH+-10%
L 202	1-408-415-00	CHOKE COIL 33UH+-5%
L 203	1-408-421-00	CHOKE COIL 100UH+-10%
L 204	1-408-420-00	CHOKE COIL 82UH
L 205	1-408-415-00	CHOKE COIL 33UH+-10%
L 206	1-408-418-00	CHOKE COIL 56UH

SYMBOL-NO	P-NO	DESCRIPTION
L 207	1-408-421-00	CHOKE COIL 100UH+-10%
L 208	1-408-421-00	CHOKE COIL 100UH+-10%
L 209	1-408-421-00	CHOKE COIL 100UH+-10%
L 210	1-408-418-00	CHOKE COIL 56UH
L 211	1-408-425-00	CHOKE COIL 220UH+-10%
L 212	1-408-421-00	CHOKE COIL 100UH+-10%
L 213	1-408-416-00	CHOKE COIL 39UH
L 301	H-5159-113-H	CHOKE COIL 8.2MH
L 302	1-408-411-00	CHOKE COIL 15UH
L 303	1-408-409-00	CHOKE COIL 10UH
L 304	1-408-418-00	CHOKE COIL 56UH
L 305	1-408-416-00	CHOKE COIL 39UH
L 306	1-408-414-00	CHOKE COIL 27UH
L 307	1-408-881-00	CHOKE COIL 820UH+-10%
L 308	1-408-425-00	CHOKE COIL 220UH
L 309	1-408-425-00	CHOKE COIL 220UH+-10%
L 310	1-408-411-00	CHOKE COIL 15UH
L 311	1-408-409-00	CHOKE COIL 10UH
L 351	1-408-421-00	CHOKE COIL 100UH+-10% (WG,AEP)
L 401L	H-5130-421-H	COIL 2.4MH
L 401R	H-5130-421-H	COIL 2.4MH
L 501	1-408-421-00	CHOKE COIL 100UH+-10%
L 502	1-410-457-11	CHOKE COIL 15000UH
L 503	1-410-457-11	CHOKE COIL 15000UH
L 504	1-408-424-00	CHOKE COIL 180UH
L 506	H-5159-111-H	CHOKE COIL 5600UH
L 702	1-408-881-00	CHOKE COIL 820UH
L 851	H-5273-341-H	LINE FILTER
L 901	1-408-421-00	CHOKE COIL 100UH+-10%
L1002	1-408-421-00	CHOKE COIL 100UH+-10%
L1003	1-408-421-00	CHOKE COIL 100UH+-10%
L1005	1-408-421-00	CHOKE COIL 100UH+-10%
L1006	1-408-421-00	CHOKE COIL 100UH+-10%
L1008	1-408-421-00	CHOKE COIL 100UH+-10%
L1009	1-408-421-00	COIL 100UH+-10%
L1010	1-408-410-00	COIL 12UH+-10%
L1013	1-408-421-00	COIL 100UH+-10%
L1014	1-408-421-00	CHOKE COIL 100UH+-10%
L1015	1-408-421-00	CHOKE COIL 100UH+-10%
L1016	1-408-421-00	CHOKE COIL 100UH+-10%
L1017	1-408-421-00	CHOKE COIL 100UH+-10%
L1018	1-408-421-00	CHOKE COIL 100UH+-10%
L1020	1-408-421-00	CHOKE COIL 100UH+-10%
L1021	1-408-421-00	CHOKE COIL 100UH+-10%
L1022	1-408-421-00	CHOKE COIL 100UH+-10%
L1023	1-408-421-00	CHOKE COIL 100UH+-10%
L1024	1-408-421-00	CHOKE COIL 100UH+-10%
L1042	1-408-421-00	CHOKE COIL 100UH+-10% (AEP)
L1401	1-408-421-00	CHOKE COIL 100UH+-10%
L1403	1-408-421-00	CHOKE COIL 100UH+-10%
L1404	1-408-415-00	CHOKE COIL 100UH+-10%
L1405	1-408-417-00	CHOKE COIL 47UH+-10%
L1406	1-408-415-00	CHOKE COIL 33UH+-10%
L1501	1-408-421-00	CHOKE COIL 100UH+-10%
L1502	1-408-421-00	CHOKE COIL 100UH+-10%
L1530	1-408-421-00	CHOKE COIL 100UH+-10%
L1591	1-408-421-00	CHOKE COIL 100UH+-10%
L1630	1-408-421-00	CHOKE COIL 100UH+-10%
L1801	1-408-410-00	CHOKE COIL 12UH (WG,AEP)
L1802	1-408-411-00	CHOKE COIL 15UH+-10% (WG,AEP)
L3702	1-408-421-00	CHOKE COIL 100UH+-10%

COILS

X 701	H-5781-581-H	CRYSTAL 32.768KHZ
X 702	H-5781-832-H	CRYSTAL 17.7MHZ
X1001	H-5782-832-H	CRYSTAL 17.7MHZ
X1002	H-5782-832-H	CRYSTAL 17.7MHZ
X1003	H-5781-981-H	CRYSTAL 8.0MHZ
X1004	H-5782-851-H	CRYSTAL 20MHZ
X1005	H-5781-782-H	CRYSTAL 500KHZ
X1401	H-5782-832-H	CRYSTAL 17.7MHZ
X1402	H-5781-782-H	CRYSTAL 500KHZ
X1630	H-5780-652-H	CRYSTAL (AEP,UK)
X2701	H-5781-981-H	CRYSTAL 8.0MHZ
X3701	H-5782-891-H	CRYSTAL 12.0MHZ

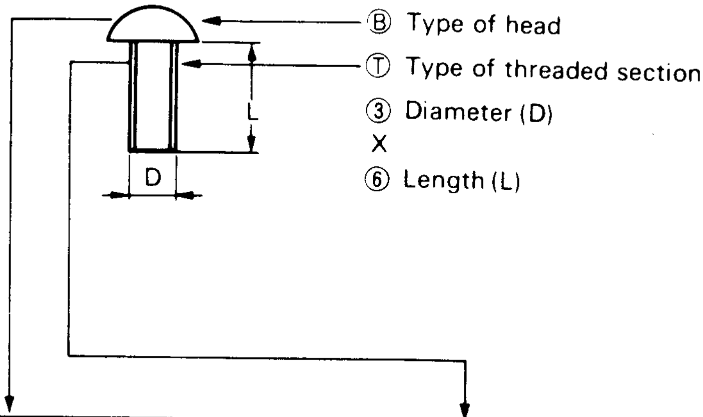
MISCELLANEOUS

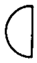
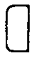
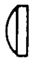
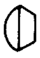
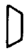
SYMBOL-NO	P-NO	DESCRIPTION
BL 501	H-5272-375-H	LINE FILTER
BL 502	H-5272-375-H	LINE FILTER
BL 503	H-5272-375-H	LINE FILTER
BL 504	H-5272-375-H	LINE FILTER
BL1001	H-5272-375-H	LINE FILTER
BL1002	H-5272-375-H	LINE FILTER
BZ1501	H-5409-272-H	BUZZER
CE 901	H-5781-591-H	CRYSTAL
CF1801	H-5160-562-H	FILTER (AEP)
CF1802	H-5160-562-H	FILTER (AEP)
CP 201	H-5163-301-H	FILTER,TRAP 4.4MHZ
CP 202	H-5163-341-H	LOW PASS FILTER
CP 203	H-5163-311-H	TRAP COIL
CP 204	H-5169-003-H	LOW PASS FILTER
CP 301	H-5163-082-H	BAND PASS FILTER
CP 302	H-5785-388-H	DELAY LINE
CP 351	H-5160-431-H	BAND PASS FILTER (WG,AEP)
CP 401L	H-5163-021-H	BAND PASS FILTER
CP 401R	H-5163-021-H	BAND PASS FILTER
CP 502	H-5163-103-H	LOW PASS FILTER
CP 503	H-5163-103-H	LOW PASS FILTER
CP 504	H-5163-103-H	LOW PASS FILTER
CP1001	H-5162-973-H	BAND PASS FILTER
CP1002	H-5162-973-H	BAND PASS FILTER
CP1003	H-5163-112-H	LOW PASS FILTER
CP1004	H-5163-112-H	LOW PASS FILTER
CP1005	H-5163-112-H	LOW PASS FILTER
CP1006	H-5163-711-H	DELAY LINE
CP1007	H-0239-053-H	LINE FILTER
CP1008	H-0239-053-H	LINE FILTER
CP1009	H-0239-053-H	LINE FILTER
CP1016	H-0239-054-H	CERAMIC DISC 270PF+-10% 50V
CP1017	H-0239-054-H	CERAMIC DISC 270PF+-10% 50V
CP1019	H-0239-054-H	CERAMIC DISC 270PF+-10% 50V
CP1021	H-0239-057-H	CERAMIC DISC 47PF+-10% 50V
CP1022	H-0239-057-H	CERAMIC DISC 47PF+-10% 50V
CP1024	H-0239-054-H	CERAMIC DISC 270PF+-10% 50V
CP1025	H-0239-054-H	CERAMIC DISC 270PF+-10% 50V
CP1026	H-0239-054-H	CERAMIC DISC 270PF+-10% 50V
CP1028	H-0239-057-H	CERAMIC DISC 47PF+-10% 50V
CP1029	H-0239-054-H	CERAMIC DISC 270PF+-10% 50V
CP1030	H-0239-054-H	CERAMIC DISC 270PF+-10% 50V
CP1031	H-0239-054-H	CERAMIC DISC 270PF+-10% 50V
CP1033	H-0239-057-H	CERAMIC DISC 47PF+-10% 50V
CP1034	H-0239-057-H	CERAMIC DISC 47PF+-10% 50V
CP1035	H-0239-057-H	CERAMIC DISC 47PF+-10% 50V
CP1036	H-0239-057-H	CERAMIC DISC 47PF+-10% 50V
CP1038	H-5163-701-H	LOW PASS FILTER
CP1501	H-5163-204-H	COIL (WG,AEP)
CP1801	H-5124-098-H	BAND PASS FILTER (AEP)
CP1802	H-5124-098-H	BAND PASS FILTER (AEP)
CP1803	H-5120-921-H	COIL 55KHZ (E)(AEP)
CP1804	H-5160-551-H	FILTER (AEP)
CP1805	H-5124-098-H	BAND PASS FILTER (AEP)
DG 701	H-5315-031-H	DISPLAY
⚠ F 850	1-532-078-00	FUSE 1A
⚠ F 851	H-5721-064-H	FUSE 2.5A
⚠ F 852	1-532-259-00	FUSE 1.6A
⚠ F 853	1-532-235-00	FUSE 315MA
⚠ F 855	H-5720-171-H	FUSE 3.5MA
IR 701	H-5477-545-H	MODULE IR
J 701	H-5673-763-H	MINI JACK
J3701	H-5694-691-H	SOCKET
J3702	H-5671-891-H	MINI JACK
J3703	H-5671-891-H	MINI JACK
LV 701	H-5317-055-H	PWB ASSY LEVEL INDICATOR
QF 801	H-5721-941-H	IC PROTECTOR
QF 802	H-5721-941-H	IC PROTECTOR
S 141	H-5635-321-H	SWITCH
S 142	H-5635-321-H	SWITCH
S 701	1-570-313-11	SWITCH
S 702	1-570-313-11	SWITCH
S 703	1-570-313-11	SWITCH
S 704	1-570-313-11	SWITCH
S 705	1-570-313-11	SWITCH
S 706	1-570-313-11	SWITCH
S 707	1-570-313-11	SWITCH
S 710	1-570-313-11	SWITCH
S 711	1-570-313-11	SWITCH
S 712	1-570-313-11	SWITCH
S 713	1-570-313-11	SWITCH
S 714	1-570-313-11	SWITCH
S 715	1-570-313-11	SWITCH
S 716	1-570-313-11	SWITCH
S 717	1-570-313-11	SWITCH
S 718	1-570-313-11	SWITCH
S 719	1-570-313-11	SWITCH (WG,AEP)
S 722	1-570-313-11	SWITCH
S 723	1-570-313-11	SWITCH
S 724	1-570-313-11	SWITCH
S 725	1-570-313-11	SWITCH
S 726	1-570-313-11	SWITCH
S 727	1-570-313-11	SWITCH
S 728	1-570-313-11	SWITCH
S 733	1-570-313-11	SWITCH
S 737	1-570-313-11	SWITCH
S 751	1-570-313-11	SWITCH
S 752	1-570-313-11	SWITCH
S 755	1-570-313-11	SWITCH
S 756	1-570-313-11	SWITCH
S 757	1-570-313-11	SWITCH
S 758	1-570-313-11	SWITCH
S1501	H-5622-562-H	SWITCH
S1502	H-5622-562-H	SWITCH
S3701	H-5622-031-H	SWITCH

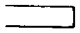
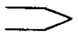
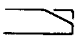
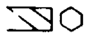
EXPLODED VIEWS

SCREW CLASSIFICATION

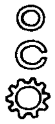
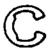
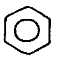
Example: BT3 × 6



Abbre-viation	Name	Shape
No symbol	Brazier head	
P	Pan head	
B	Binding head	
O	Oval countersunk head	
F	Flat countersunk head	

Abbre-viation	Name	Shape
No symbol	Machine (clamps without tapping)	
t	Tapping (clamps with tapping) Type 1	
T	Tapping (clamps with tapping) Type 2	
f	Forming tight (for metal)	
Note	Since the forming tight screw tightens while self-tapping machine screws can be replaced by tapping screws.	

Washers and Nuts

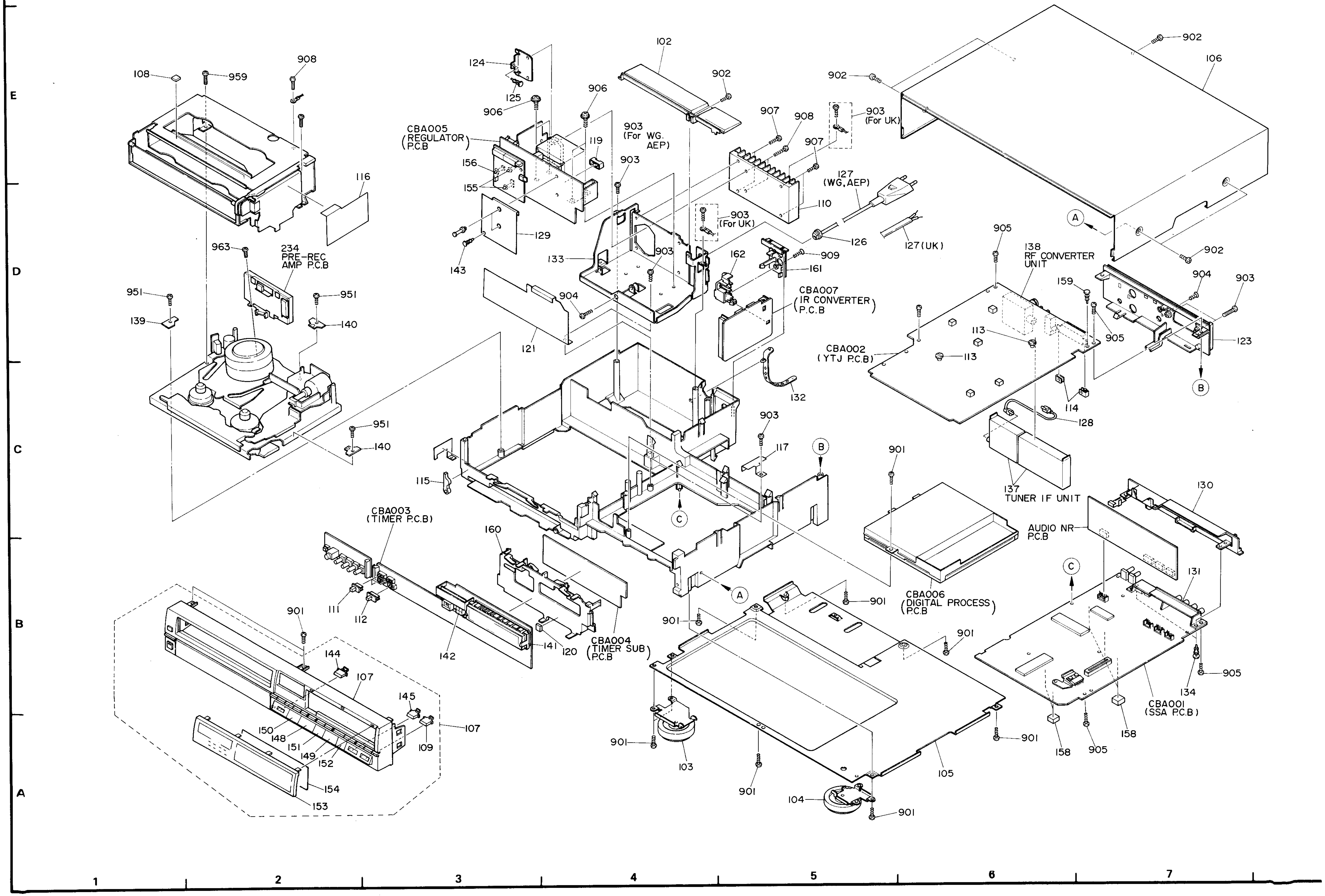
Abbre-viation	Name	Shape
W SW LW	Washer Spring washer Locking washer	
E	E-ring	
N	Nut	
Note	Internal dia is indicated for nuts and washers.	

LUBRICATION

Lubrication points are shown in the exploded view diagrams by marks (Ⓢ, Ⓗ)
Lubricants shown in the diagram are as follows.

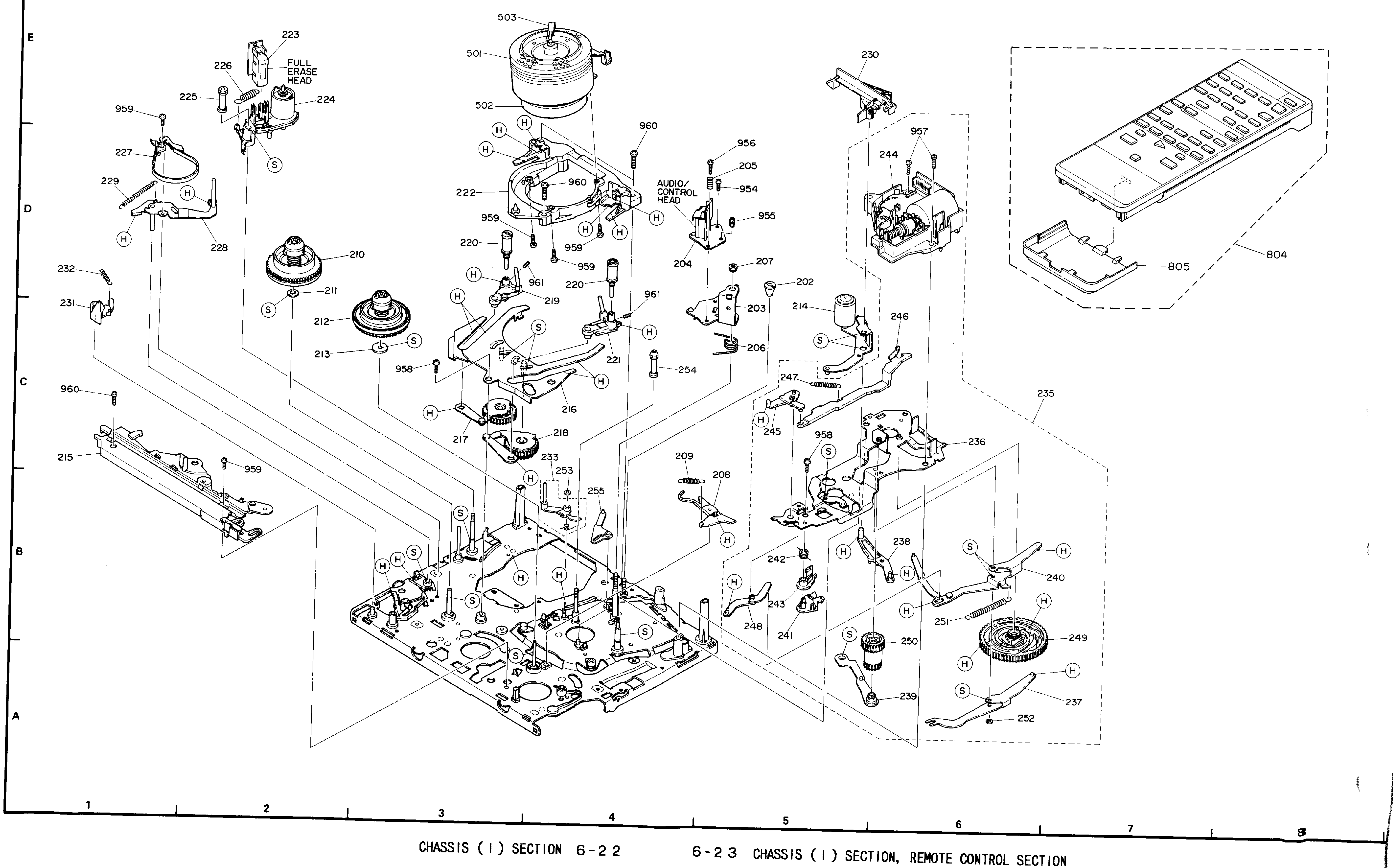
Ⓢ Oil
Ⓗ Grease

CABINET SECTION


E
D
C
B
A
1
2
3
4
5
6
7
108
959
908
116
963
234
PRE-REC
AMP P.C.B
951
139
140
951
140
124
125
906
CBA005
(REGULATOR
P.C.B)
156
155
129
143
121
906
119
903
(For WG.
AEP)
102
902
903
133
904
903
903
(For UK)
907
908
907
903
(For UK)
110
127
(WG, AEP)
126
127(UK)
162
909
161
CBA007
(IR CONVERTER
P.C.B)
132
902
106
902
902
A
905
138
RF CONVERTER
UNIT
159
904
903
905
123
B
113
113
CBA002
(YTJ P.C.B)
114
128
137
TUNER IF UNIT
115
903
117
B
C
A
CBA003
(TIMER P.C.B)
111
112
142
160
141
120
CBA004
(TIMER SUB
P.C.B)
901
144
107
145
107
109
150
148
151
149
152
154
153
901
901
901
103
901
104
901
105
901
901
CBA006
(DIGITAL PROCESS
P.C.B)
901
130
AUDIO NR
P.C.B
C
131
134
905
158
905
158
CBA001
(SSA P.C.B)

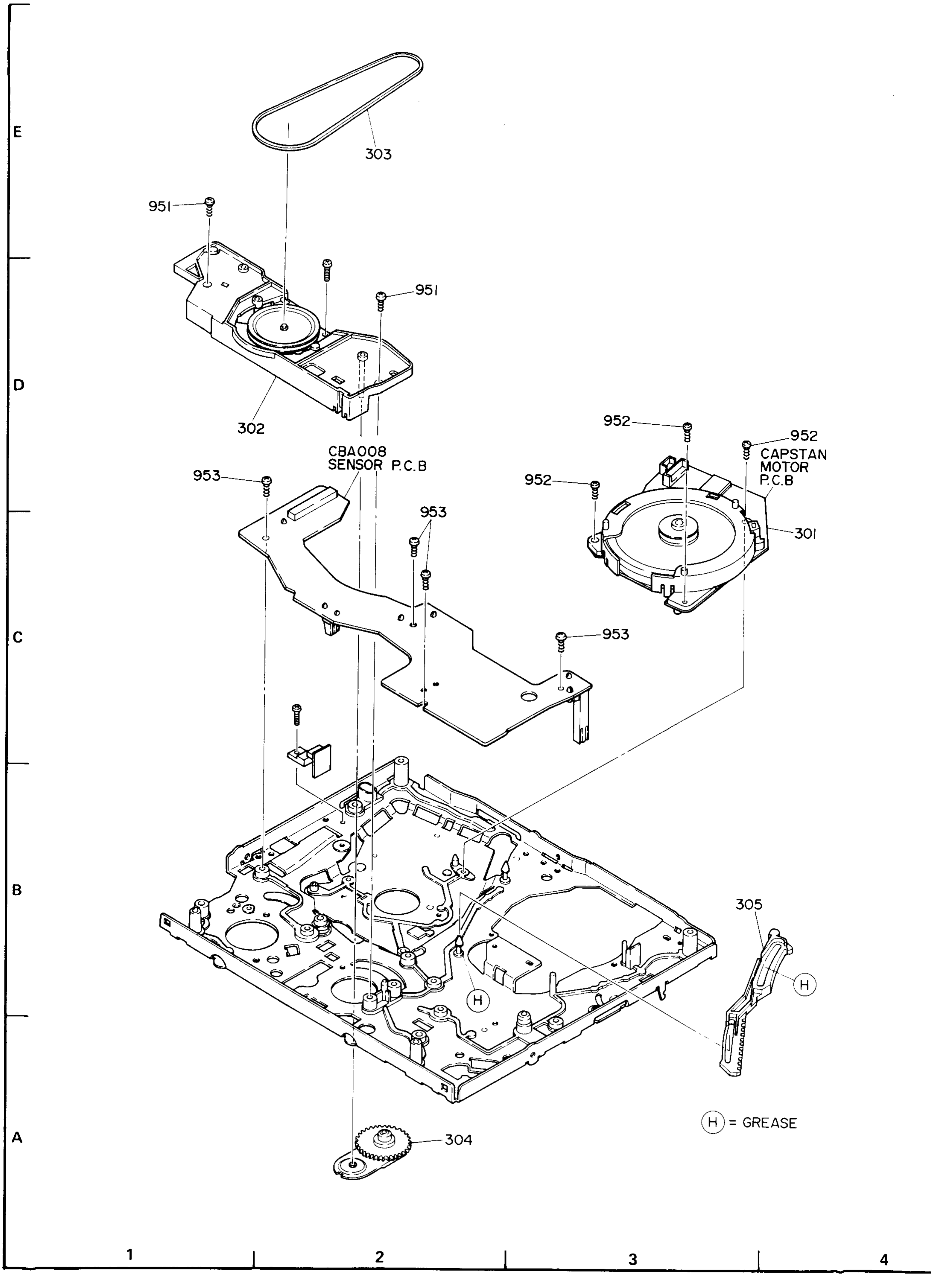
CHASSIS (1) SECTION

REMOTE CONTROL SECTION



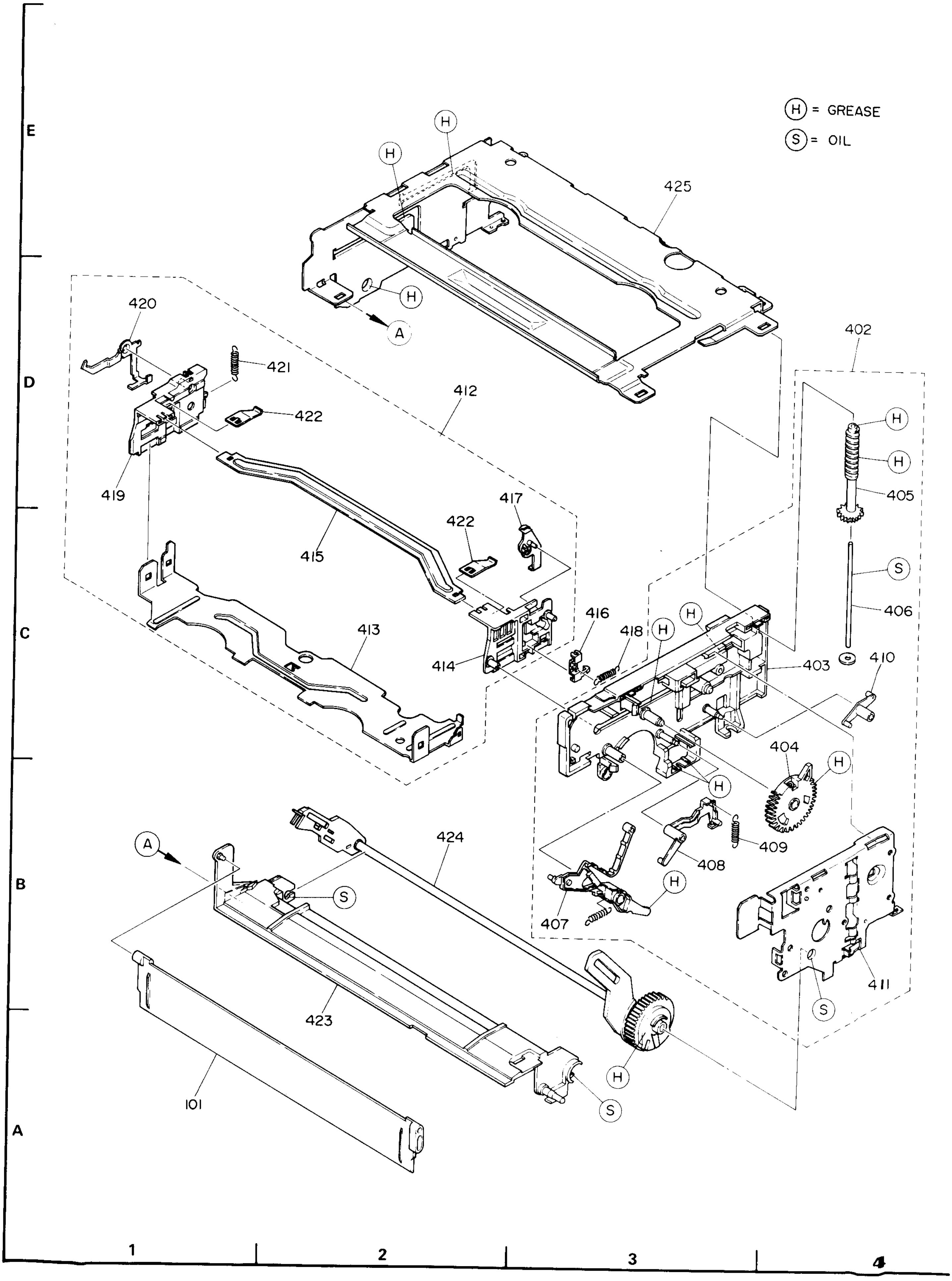
E
D
C
B
A
1
2
3
4
5
6
7
8
503
501
502
223
FULL
ERASE
HEAD
226
225
224
959
227
229
228
H
S
210
211
212
213
232
231
960
215
959
222
960
959
220
961
219
959
220
961
221
216
958
217
218
233
253
255
254
956
205
954
955
AUDIO/
CONTROL
HEAD
204
207
202
203
206
209
208
230
957
244
214
246
247
245
958
236
235
242
243
241
248
238
240
251
249
250
239
237
252
804
805

CHASSIS (II) SECTION



E
D
C
B
A
1
2
3
4
303
951
951
302
CBA008
SENSOR P.C.B
953
953
953
952
952
952
CAPSTAN
MOTOR
P.C.B
301
305
H
H
304
H = GREASE

CASSETTE LOADING MECHANISM SECTION


H = GREASE
S = OIL
E
D
C
B
A
1
2
3
4
425
H
H
H
A
420
421
422
412
419
417
422
415
413
416
418
414
H
H
403
402
H
H
405
S
406
410
404
H
H
408
409
407
H
A
424
S
423
101
H
S
S
411

MECHANISM PARTS LIST

SYMBOL-NO	P-NO	DESCRIPTION
		FOR FINAL ASSEMBLY
101	H-6231-131-H	DOOR,CASSETTE
102	H-6231-081-H	PIECE,REAR
103	H-6064-755-H	INSULATOR(L)
104	H-6064-765-H	INSULATOR(R)
105	H-6003-503-H	COVER,BOTTOM
106	H-6003-485-H	COVER,TOP
107	H-6232-893-H	PANEL,FRONT (WG)
107	H-6232-892-H	PANEL,FRONT (AEP)
107	H-6232-891-H	PANEL,FRONT (UK)
109	H-6073-531-H	BUTTON,REC
111	H-6079-331-H	KNOB,SLIDE
112	H-6079-501-H	KNOB,SLIDE
113	H-6800-971-H	STUD
114	H-7417-001-H	BRACKET
115	H-6802-751-H	PWB HOLDER
116	H-7702-551-H	CONNECTOR GUIDE
117	H-7702-542-H	CONNECTOR COVER
119	H-6753-911-H	FUSE COVER
121	H-7493-692-H	SHIELD PLATE
123	H-6232-841-H	REAR(L)PANEL
⚠ 126	4-500-165-00	BUSHING (WG)
⚠ 126	4-500-165-00	BUSHING (AEP)
⚠ 126	4-500-165-00	BUSHING (UK)
⚠ 127	1-555-795-00	CORD (WG)
⚠ 127	1-555-795-00	CORD (AEP)
⚠ 127	1-556-035-00	CORD (UK)
128	H-5885-982-H	CABLE,PLUG
129	H-7798-451-H	PLATE,SHIELD
130	H-6232-921-H	PANEL,REAR
131	H-5690-316-H	PLATE,JACK
132	H-6897-502-H	BAND
133	H-7793-732-H	TRANSFORMER HOLDER
134	H-6714-214-H	NYLON RIVET
135	H-7418-541-H	EARTH PLATE
137	H-5588-061-H	TUNER IF BLOCK (WG,AEP)
137	H-5586-586-H	TUNER IF BLOCK (UK)
138	H-5589-111-H	RF CONVERTER (WG,AEP)
138	H-5589-141-H	RF CONVERTER (UK)
138	H-7741-445-H	FELT
139	H-7415-782-H	BRACKET
140	H-7415-793-H	BRACKET
141	H-6800-781-H	DISPLAY HOLDER
142	H-6802-711-H	LED HOLDER
143	H-6714-215-H	NYLON RIVET
144	H-6073-501-H	BUTTON
145	H-6073-502-H	BUTTON
153	H-6247-501-H	CLEAR PANEL
154	H-6438-292-H	DISPLAY FILTER
202	H-6911-101-H	SCREW
203	H-7412-852-H	BASE-ACE HEAD
204	H-5446-631-H	HEAD-AUDIO CONTROL
205	H-6304-906-H	SPRING
206	H-6522-752-H	SPRING
207	H-7785-673-H	NUT
208	H-6896-912-H	BRAKE
209	H-6555-501-H	SPRING
210	H-6415-532-H	REEL,SUPPLY
211	H-7789-123-H	POLYSLIDER WASHER
212	H-6415-542-H	REEL-TAKE UP
213	H-7789-122-H	POLYSLIDER WASHER
214	H-6975-761-H	PRESSER ROLLER
215	H-6804-273-H	BLOCK,SLIDER
216	H-7412-822-H	PLATE
217	H-7412-816-H	GEAR,LOADING (L)
218	H-7412-806-H	GEAR,LOADING (R)
219	H-6975-743-H	GUIDE ROLLER BASE (IN)
220	H-6344-741-H	GUIDE ROLLER
221	H-6975-732-H	GUIDE ROLLER BASE (OUT)
223	H-5446-641-H	HEAD-FULL ERASE
224	H-6897-473-H	ARM,IMPEDANCE
225	H-4508-237-H	GUIDE,TAPE
226	H-6555-431-H	SPRING
227	H-7413-665-H	HOLDER-BAND
228	H-7412-863-H	ARM
229	H-6555-444-H	SPRING
230	H-6897-264-H	HOLDER
231	H-6896-751-H	ARM
232	H-6555-061-H	SPRING
233	H-6976-371-H	ARM
234	H-5385-931-H	PWB ASSY PRE AMP/HEAD SW
235	H-7429-672-H	BRACKET
236	H-7398-631-H	BRACKET
237	H-7412-881-H	ARM
238	H-6976-551-H	ARM
239	H-7412-892-H	ARM
240	H-7428-072-H	ARM,OPERATION
241	H-6897-241-H	ARM
242	H-6551-151-H	SPRING
243	H-6804-791-H	BRAKE
244	H-6896-894-H	HOLDER,MOTOR
245	H-6896-852-H	ARM
246	H-6897-251-H	ARM
247	H-6555-483-H	SPRING
248	H-6897-271-H	ARM
249	H-6897-065-H	GEAR,MODE
250	H-6434-861-H	WORM WHEEL
251	H-6555-052-H	SPRING
252	H-7799-012-H	WASHER
253	H-7786-623-H	POLYSLIDER WASHER
254	H-4508-235-H	GUIDE
255	H-6898-472-H	ARM,IDLE
301	H-5571-382-H	MOTOR,CAPSTAN
302	H-6896-951-H	CLUTCH BASE ASSY
303	H-6351-555-H	BELT
304	H-6897-095-H	ARM,FF/REW
305	H-6434-851-H	RACK
402	H-7412-574-H	BRACKET,SIDE(R)
403	H-6896-685-H	BRACKET,SIDE(R)
404	H-6896-971-H	WORM WHEEL ASSY
405	H-6435-571-H	WORM
406	H-4508-221-H	WORM SHAFT
407	H-6896-632-H	ARM-SWITCH
408	H-6897-041-H	ARM-SWITCH
409	H-6302-474-H	SPRING
410	H-6896-623-H	ARM,DOOR
411	H-7412-583-H	BRACKET-GEAR
412	H-7412-562-H	HOLDER,CASSETTE
413	H-7412-595-H	HOLDER BASE,CASSETTE
414	H-6896-664-H	HOLDER,CASSETTE (R)
415	H-7428-113-H	HOLDER,STAY
416	H-6897-531-H	ARM
417	H-6897-001-H	ARM
418	H-6555-043-H	SPRING
419	H-6896-673-H	HOLDER,CASSETTE (L)
420	H-7412-944-H	ARM
421	H-6555-771-H	SPRING
422	H-7412-295-H	SPRING
423	H-6896-653-H	HOLDER-FRONT
424	H-4508-212-H	SHAFT
425	H-7412-551-H	BRACKET-SIDE (L)
501	H-5436-015-H	CYLINDER ASSY
502	H-5575-911-H	MOTOR,CYLINDER
503	H-5792-633-H	BRUSH
901	7-685-647-79	SCREW (3X14) BLACK
902	7-685-645-79	SCREW (M3)
903	7-685-647-79	SCREW (3X14) BLACK
904	7-685-646-79	SCREW (3X8)
905	7-685-650-79	SCREW 3X16 BT
906	7-685-662-79	SCREW (4X14)
907	7-685-648-79	BINDING SCREW 3MMDX12MM
908	7-682-547-09	3X6 BT BIND SCREW
951	7-685-135-19	SCREW
952	7-685-647-79	SCREW
953	7-685-646-79	SCREW
954	7-682-548-04	SCREW-3MMDX8MM
955	3-701-509-00	SCREW
956	7-682-551-04	SCREW (3X14)
957	7-685-648-79	SCREW (3X12)
958	7-685-646-79	SCREW (3X8)
959	7-682-548-04	SCREW (B3X8)
960	7-682-550-04	SCREW (B3X12)
961	7-621-733-08	SCREW
963	7-682-545-04	SCREW - 3X4 PAN HEADSCREW

SYMBOL-NO	P-NO	DESCRIPTION
		FOR ACCESSARIES
801	H-4630-277-H	OPERATING GUIDE
802	H-5898-876-H	CONNECTER CORD
803	H-5747-741-H	CONNECTOR CORD
804	A-6767-800-A	REMOTE COMMANDER(RMT252)
805	3-694-907-01	COVER,BATTERY
851	H-7985-042-H	SOFT SOCK
852	H-7969-172-H	CARTON BOX
853	H-7978-981-H	CUSHION ,F
854	H-7978-991-H	CUSHION,B
CBA 001	H-5496-311-H	PWB ASSY SSA
CBA 002	H-5493-522-H	PWB ASSY YTJ (AEP)
CBA 002	H-5493-523-H	PWB ASSY YTJ (WG)
CBA 002	H-5496-985-H	PWB ASSY YTJ (UK)
CBA 003	H-5496-973-H	PWB ASSY TIMER (AEP)
CBA 003	H-5496-977-H	PWB ASSY TIMER (WG)
CBA 003	H-5496-971-H	PWB ASSY TIMER (UK)
CBA 004	H-5491-681-H	PWB ASSY TIMER SUB
CBA 005	H-5495-312-H	PWB ASSY REGULATOR
CBA 006	H-5493-631-H	PWB ASSY DIGITAL
CBA 007	H-5496-841-H	PWB ASSY IR CONVERTOR
CBA 008	H-7023-061-H	PWB ASSY SENSOR

SYMBOL-NO	P-NO	DESCRIPTION

SLV-801/802

RMT-252

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